

R E P O R T

*Phase 1 Final Design Report
Hudson River PCBs Superfund Site*

*Attachment A – Addendum to
Treatability Studies Report*



**General Electric Company
Albany, New York**

March 21, 2006

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

Table of Contents

Section	1. Introduction and Objectives.....	1-1
Section	2. Treatability Studies Planning	2-1
2.1	Treatability Studies Work Plan	2-1
2.2	Corrective Action Memoranda.....	2-1
2.3	Duties of Contractors and Laboratories.....	2-1
Section	3. Treatability Studies Implementation.....	3-1
3.1	Additional Treatability Studies Overview	3-1
3.2	Primary Sedimentation Tests	3-1
3.3	Dewatering Polymer Tests	3-2
3.4	Rapid Small-Scale Column Tests.....	3-2
Section	4. References	4-1
Section	5. Acronyms.....	5-1

Table

2-1 Analyses Performed by Laboratories (placed in text)

Exhibits

- A Treatability Studies Corrective Action Memorandum No. 008 and Associated Correspondence (Electronic)
- B Analytical Data Tables (Electronic)
- C Waste Stream Field Logs (Electronic)
- D Database (Electronic)

1. Introduction and Objectives

On behalf of the General Electric Company (GE), treatability studies were conducted during 2004 and 2005 to support the design of the remedy selected by the United States Environmental Protection Agency (EPA) to address polychlorinated biphenyls (PCBs) in sediments of the Upper Hudson River, located in New York State. Treatability studies were conducted to provide data to guide equipment selection and sizing during the remedial design, as specified in the *Treatability Studies Work Plan* (TS Work Plan) (Blasland, Bouck & Lee, Inc. [BBL], 2004) approved by EPA on February 13, 2004. The activities described in the TS Work Plan were conducted under an Administrative Order on Consent for Hudson River Remedial Design and Cost Recovery, effective August 18, 2003 (Index No. CERCLA-02-2003-2027) (EPA/GE, 2003).

As described in the TS Work Plan, the objectives of the treatability studies were to provide the data needed to:

- Determine the potential for water quality impacts caused by dredging;
- Develop the sediment dewatering design to meet anticipated landfill acceptance or Beneficial Use Determination requirements;
- Develop the water processing design to provide data relative to achieving discharge requirements; and
- Develop the disposal design to meet anticipated landfill acceptance requirements.

These objectives represent broad design goals. However, because it was not possible to address these goals with absolute precision, the primary goals of the treatability studies were to reasonably reduce uncertainty so that informed design decisions could be made and to validate, on a small scale, performance specifications of processes developed during the remedial design.

The treatability tests that were complete and the results that were available as of May 2005 were documented in the *Treatability Studies Report* (TS Report) (BBL, 2005a), which was appended to the *Phase 1 Intermediate Design Report* (BBL, 2005b) which was approved by EPA on November 1, 2005. However, the treatability study testing continued through the summer and fall of 2005 during the development of the Final Design of Phase 1 of the remedial action. This *Addendum to the Treatability Studies Report* (Addendum) provides documentation of the additional studies and resulting data.

2. Treatability Studies Planning

2.1 Treatability Studies Work Plan

Activities conducted during the treatability studies are described in the TS Work Plan and consisted of:

- Collecting samples (sediment and water) from the river and submitting them for pre-treatment characterization;
- Conducting treatability studies to simulate certain unit processes and/or to produce data on the behavior of dredged sediment or associated water subject to these operations; and
- Submitting samples from the treatability studies for analytical and geotechnical testing.

These activities were described in the TS Report for all treatability studies completed as of May 2005. The activities associated with the treatability studies that were completed concurrent with or following submittal of the TS Report are summarized in this Addendum.

2.2 Corrective Action Memoranda

If a significant change to a procedure described in the TS Work Plan was necessary during performance of the treatability studies, a Treatability Studies Corrective Action Memorandum (TS CAM) was submitted to EPA for review and approval. TS CAMs No. 001 through 008 and associated correspondence were included with the TS Report. Since submittal of the TS Report, GE and EPA have exchanged additional correspondence to resolve questions on TS CAM No. 008, which was submitted to EPA on July 8, 2005 and covered additional settling tests and bench-scale filter press test simulations. A copy of this correspondence and TS CAM No. 008 are provided in Exhibit A. To date, EPA has not provided written approval of TS CAMs No. 001, 004, 005, 006, 007, or 008, although EPA has provided verbal approval of TS CAM No. 001.

2.3 Duties of Contractors and Laboratories

BBL and Quantitative Environmental Analysis, LLC (QEA) collected sediment and water samples from the river for the treatability studies. Sample collection and analytical testing from work completed between July 2004 and May 2005 were described in the TS Report.

Waste Stream Technology, Inc. (Waste Stream) of Buffalo, New York completed the treatability studies and a portion of the analytical testing conducted between July 2004 and September 2005. The additional treatability studies that were completed between May 2005 and September 2005 are described in this Addendum. Analytical testing for these additional treatability studies were conducted by the following laboratories:

- Northeast Analytical, Inc. (NEA) in Schenectady, New York; and
- Severn Trent Laboratories (STL) in Pittsburgh, Pennsylvania.

The testing performed by each laboratory is summarized in Table 2-1, below.

Table 2-1 – Analyses Performed by Laboratories

Laboratory	Analyses Performed
NEA	<ul style="list-style-type: none">• PCBs• Total organic carbon (TOC)• Total suspended solids (TSS)
STL	<ul style="list-style-type: none">• Mercury
Waste Stream	<ul style="list-style-type: none">• Water content• Turbidity

3. Treatability Studies Implementation

3.1 Additional Treatability Studies Overview

The treatability studies were a series of unit process-specific tests that provided the data necessary to advance the remedial design. The treatability studies completed since May 2005 and described in this Addendum consisted of:

- Primary Sedimentation Tests;
- Dewatering Polymer Tests; and
- Rapid Small-Scale Column Tests (RSSCTs).

Analytical data tables for these additional treatability studies are presented in Exhibit B. Field logs, including observations and results generated by Waste Stream, are presented in Exhibit C. A complete database of results of chemical analyses conducted during the treatability studies is presented in Exhibit D.

The TS Work Plan required full data validation on 10% of the analytical results for the treatability studies. As presented in the TS Report, full data validation was performed on greater than 10% of the analytical results for the treatability studies. Even with the additional analytical results from the testing described in this Addendum, full data validation has still been performed on greater than 10% of the analytical results for the treatability studies; therefore, additional full data validation for data collected as part of this addendum was not required to meet the requirements of the TS Work Plan.

3.2 Primary Sedimentation Tests

Sedimentation of fresh-water slurries with a concentration less than 100 grams per liter can generally be characterized as “flocculent settling.” As slurry concentrations are increased, the sedimentation process may be characterized as a “zone settling” process, in which a clearly defined interface is formed between the clarified supernatant water and the more concentrated settled material.

The primary sedimentation tests examined the sedimentation of suspended solids under flocculent settling conditions. For the additional settling tests completed between May and September 2005, a 2-liter graduated

cylinder was used, as described in TS CAM No. 008. Among the samples tested were overflow (fines) material generated from the hydrocyclone performance testing, and fines from size separation testing.

During the settling tests, observations of the quantity of settled solids at different times using various polymers were recorded. Field log sheets, including visual observations, are included in Exhibit C.

3.3 Dewatering Polymer Tests

As described in the Phase 1 IDR, offloaded sediments will be separated into coarse and fines fractions, and the resulting fines will be mechanically dewatered using a combination of polymer conditioning and filter press treatment. As such, dewatering polymer tests, using the methods described in the TS Work Plan, were conducted to identify the preferred polymer conditioning for the sediments.

For the additional tests completed between May and September 2005, dewatering polymer tests were conducted on samples of settled solids from overflow (fines) material generated from the hydrocyclone performance testing and various fractions from size separation testing. Filter cake samples were tested by Waste Stream for water content using Standard Measurement 2540G. Field log sheets, including the water content results and visual observations, are included in Exhibit C.

3.4 Rapid Small-Scale Column Tests

RSSCTs were conducted to estimate carbon consumption rates and removal efficiencies. In addition, RSSCTs were used to compare the performance of carbon obtained from Calgon Carbon Corporation (Calgon) and NORIT Americas Inc. (NORIT). During the RSSCTs, water was passed through six different column set-ups:

- Single column with Calgon carbon;
- Two columns in series with Calgon carbon;
- Single column with NORIT carbon;
- Two columns in series with NORIT carbon;
- Single blank column; and
- Two blank columns in series.

Using these configurations, the RSSCT was able to simulate empty bed contact times of 10 minutes for the single columns and 20 minutes for the double columns. Additionally, the RSSCT simulated approximately 1 month of full-scale operation in only 4 days.

There were several attempts to create RSSCT feed water with PCB concentrations in the 5- to 15-microgram-per-liter range to complete a meaningful test. Ultimately, the material selected for the RSSCT was filtrate generated from sediment category S4B-2¹. The TS Work Plan specified that the RSSCT was to be conducted for 24 days, which approximated 6 months of full-scale operation. The initial RSSCT was completed in April and May 2005, and included in the TS Report. However, because PCBs did not break through the carbon in this time frame, the RSSCT was extended to 85 days and completed in July 2005. The results from the entire RSSCT are presented in this Addendum.

Samples of effluent water from the six different column set-ups were collected periodically during the course of the RSSCT and analyzed for the following parameters:

- PCBs (Modified Green Bay Mass Balance Method);
- TSS (EPA Method 160.2, with modifications consistent with ASTM Procedure D3977-97, Test Method B – Filtration); and
- TOC (Tekmar Dohrmann).

Samples were also collected from the effluent of each of the six column set-ups and analyzed by Waste Stream for turbidity (EPA Method 180.1). Additionally, samples were periodically collected from all or some of the column set-ups and analyzed for PCBs, and a weekly composite sample of the RSSCT feed water was submitted for analysis of PCBs (EPA Method 608). Finally, one grab sample was collected from the RSSCT feed water and analyzed for total mercury (EPA Method 1631).

During the course of the RSSCTs, analytical testing beyond the requirements of the TS Work Plan was conducted. Some of this additional analytical testing was not conducted on all the column set-ups, but instead was typically focused on the three single columns.

¹ Four categories of sediment that represented the anticipated range of sediments in targeted removal areas were identified for use in the treatability studies. Sediments identified as S4B-2 were fine-grained sediments with oils and/or lower bulk density that had the highest PCB concentrations in River Section 1.

The analytical results for the RSSCTs are presented in Table 1 in Exhibit B. Field log sheets, including results from Waste Stream and visual observations, are included in Exhibit C.

The RSSCT was modified from the approach specified in the TS Work Plan, and these changes were described in the TS CAMs and correspondence with EPA. The majority of these changes were related to the feed water and analytical testing. TS CAMs No. 001 through 008 and associated correspondence were attached to the TS Report. Additional correspondence between EPA and GE related to questions regarding TS CAM No. 008 is included in Exhibit A.

4. References

- BBL. 2005a. *Treatability Studies Report* (TS Report). Hudson River PCBs Superfund Site. Prepared for the General Electric Company, Albany, NY.
- BBL. 2005b. *Phase 1 Intermediate Design Report*. Hudson River PCBs Superfund Site. Prepared for the General Electric Company, Albany, NY.
- BBL. 2004. *Treatability Studies Work Plan* (TS Work Plan). Hudson River PCBs Superfund Site. Prepared for the General Electric Company, Albany, NY.
- EPA/GE. 2003. Administrative Order on Consent for Hudson River Remedial Design and Cost Recovery (Index No. CERCLA-02-2003-2027). Effective Date August 18, 2003.

5. Acronyms

BBL	Blasland, Bouck & Lee, Inc.
Calgon	Calgon Carbon Corporation
EPA	United States Environmental Protection Agency
GE	General Electric Company
NEA	Northeast Analytical, Inc.
NORIT	NORIT Americas Inc.
PCB	polychlorinated biphenyl
QEA	Quantitative Environmental Analysis, LLC
RSSCT	rapid small-scale column test
STL	Severn Trent Laboratories
TOC	total organic carbon
TS	Treatability Studies
TS CAM	Treatability Studies Corrective Action Memoranda
TSS	total suspended solids
Waste Stream	Waste Stream Technology, Inc.

Exhibits



Exhibit A

Treatability Studies Corrective Action Memorandum No. 008 and Associated Correspondence (Electronic)





John G. Haggard
Manager, Hudson River Program

GE
320 Great Oaks Office Park, Ste: 319
Albany, NY 12203

T 518 862 2739
F 518 862 2731
John.Haggard@ge.com

Via Federal Express

July 8, 2005

Team Leader, Hudson River Team
Emergency and Remedial Response Division
United States Environmental Protection Agency, Region 2
290 Broadway, 19th Floor
New York, New York 10007-1866
Attn: Douglas Garbarini, Hudson River PCBs Superfund Site (3 copies – 1 unbound)

Chief, New York/Caribbean Superfund Branch
Office of Regional Counsel
United States Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
Attn: Hudson River PCBs Superfund Site Attorney (1 copy)

Director, Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7011
Attn: Hudson River PCBs Superfund Site (3 copies – 1 unbound)

Director, Bureau of Environmental Exposure Investigation
New York State Department of Health
547 River Street
Troy, New York 12180
Attn: Hudson River PCBs Superfund Site (2 copies)

Re: Hudson River Treatability Study Work Plan- Corrective Action Memorandum No. 8

Dear Sir or Madam:

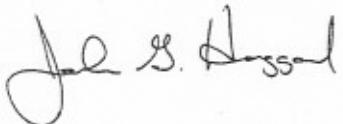
A Corrective Action Memorandum (CAM008) for the Treatability Study Work Plan is attached. This CAM proposes additional settling tests and bench-scale filter press test simulations. We request your prompt approval of this plan. These tests will not extend the schedule for submittal of Phase 1 Intermediate Design or Final Design reports.

If you have any comments or questions, please contact Scott Blaha at (518) 862-2738.

July 8, 2005

Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Haggard".

John G. Haggard
Manager, Hudson River Program

JHG/bg

Attachment

Cc: Ben Conetta
Scott Blaha
Bob Gibson
Don Sauda
Paul Doody
Barbara Ippolito

**GENERAL ELECTRIC COMPANY
HUDSON RIVER DESIGN SUPPORT
TREATABILITY STUDIES PROGRAM**

Date: July 8, 2005

Organization Name: Blasland, Bouck & Lee, Inc. (BBL)

Initiator's Name and Title: Donald Sauda, Treatability Studies Task Manager

Problem Description:

The plan for primary settling testing was provided in the Treatability Studies Work Plan (TSWP, BBL, February 2004) that was approved by USEPA on February 13, 2004. The objective (DQO 4b.(2b) & 4c.(2b)) was to provide information for design of a slurry thickening system.

The slurries that were tested were representative of hydraulically dredged or hydraulically offloaded sediments. Tests were completed with raw slurries; no size separation or chemical conditioning had been done in advance of these initial column studies.

Reported To: Scott Blaha, GE

Corrective Action:

In order to optimize the basis of the thickener design, more testing has been proposed. Samples of hydrocyclone overflow (fines) material will be tested with various coagulants and flocculants. The SOP for the settling tests is attached.

Then, the thickened solids will be dewatered with the plate and frame filter press simulator (TSWP, SOP 14, p.3). These results will be compared with dewatering results from previous tests on hydrocyclone overflow.

The tests are schedule to be started during the week beginning July 11, 2005. Tests are estimated to be completed by August 31, 2005. The data will be used to optimize the thickener design during final design.

Reviewed and Implemented By: Don Sauda (BBL)

cc: Amy Toth (Waste Stream)

Attachments:

SOP- Column (2L) Settling Testing

Attachment 1
Standard Operating Procedure
Column (2L) Settling Test

1. Agitate slurry in source container so it is well mixed, allowing a representative sample to be taken from the source container. Use mixing equipment appropriate for the container dimensions and slurry size.
2. Without changing the level of agitation in step 1, remove a 2 liter (L) sample from the source container and place the sample in a standard 2 L graduated cylinder.
3. Without changing the level of agitation in step 1, remove a 100 to 250 milliliter (ml) sample from the source container, record weight, dry cake in an approx. 100°C oven for 24 hours and record cake dry weight. Calculate the % wt. total solids of the slurry in the source container and record.
4. Agitate the slurry in the 2 L container using a plunger device so that it is well mixed. The plunger may be a steel rod that is longer than the height of the 2 L graduated cylinder, and to one end has been attached an inverted rubber stopper with diameter slightly less than the inside diameter of the 2 L graduated cylinder.
5. If settling aid is to be added, add the dose of settling aid to the surface of the slurry in the 2 L graduated cylinder and immediately follow with four strokes of the plunger (i.e. down-up-down-up), with each stroke approx. 1 second.
6. Stop agitation with the plunger and record the time of stopping as $t = 0$.
7. Record the height of the 'mudline' at approximately 5 second intervals until the change in height is less than roughly 10% per approximately 5 seconds (vs. previous reading). The 'mudline' is the interface between the particle-lean phase and the particle-concentrated phase in the 2 L graduated cylinder.
8. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 10 second intervals until the change in height is less than roughly 10% per 10 seconds (vs. previous reading).
9. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 30 second intervals until the change in height is less than roughly 10% per 30 seconds (vs. previous reading).
10. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 1 minute intervals until the change in height is less than roughly 10% per 1 minute (vs. previous reading).
11. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 2 minute intervals until the change in height is less than roughly 10% per 2 minutes (vs. previous reading).
12. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 5 minute intervals until the change in height is less than roughly 10% per 5 minutes (vs. previous reading).

13. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 10 minute intervals until the change in height is less than roughly 10% per 10 minutes (vs. previous reading).
14. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 30 minute intervals until the change in height is less than roughly 10% per 30 minutes (vs. previous reading).
15. Record the height of the 'mudline' and time elapsed from $t = 0$ at approximately 1 hour intervals until the total time from $t = 0$ is 6 hours.
16. Record the height of the 'mudline' and time elapsed from $t = 0$ when total time from $t = 0$ is approximately 24 hours.
17. Decant supernatant off of settled solids, recover settled solids, record weight, dry cake in an approx. 100°C oven for 24 hours and record cake dry weight. Calculate the % wt. total solids of the settled solids and record.

Reference: Pearse, M.J., Warren Spring Lab Report LR 281 (MP), 1978.

From: "Blaha, Scott R (Corporate)" <scott.blaha@ge.com>
To: <Conetta.Benny@epamail.epa.gov>
Date: 7/22/2005 6:18:31 PM
Subject: RE: Treatability Study CAM

Ben,

As the dewater design concept has advanced, we have focused our treatability study objectives to provide a basis for detailed engineering. That has included interaction with equipment vendors and gaining an understanding of the lab data that they prefer to accompany a spec.

In this instance, the scale of the tests and the procedure outlined in the CAM has been discussed with major equipment vendor GL&V (<http://www.glv.com/>). The 2 L graduated cylinder tests are commonly used to produce data to design thickeners. As evidence, the procedure is described in the following references for the design of thickeners:

- Pearse, M.J., "Laboratory procedures for the choice and sizing of dewatering equipment in the mineral processing industry", Warren Spring Lab (1978)
- SME Mineral Processing Handbook, N.L. Weiss, ed., (1985)
- Mineral Process Engineering, 6th ed., B.A. Wills (1997)
- Reynolds, T.D., Unit Operations and Processes in Environmental Engineering, Brooks/Cole Engineering Division (1982).

Since this is a very established protocol, we are confident that the test will meet our data quality objectives for thickener design.

From a practical perspective, the material that is to be thickened is hydrocyclone overflow. Since the volume of hydrocyclone overflow produced during the hydrocyclone studies is limited, the smaller-scale tests give more opportunity to run more tests and to vary parameters, such as polymer dose.

Regarding the frequency of mudline reading. At the beginning of the test, the descent of the mudline is rapid, so readings are taken at appropriate intervals to be able to determine the slope of the settling curve with time, which is critical for the design analysis (see Pearse (1978)). Perhaps the materials that you are considering in your comment are those with a very wide gradation that haven't been chemically conditioned, such as dredge material that gets pumped to a CDF, which is the topic of EM 1110-2-5027. The conditioned hydrocyclone overflow will have very different settling properties. Therefore, I am not sure if the guidance is directly applicable.

As I previously noted, we did use the 8" diameter columns for the primary sedimentation studies, as described in the Treatability Studies Work Plan (BBL, Feb 2004). The SOP was based on ERDC/EL TR-03-1. These tests were completed on sediment samples which had not been separated and without chemical conditioning. The settling times were consistent with your impression.

If you feel you would like to discuss this further, please give me a call. Have a good weekend.

Regards,

Scott Blaha, P.E.
GE
Project Engineer, Hudson River

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Corporate Environmental Programs

-----Original Message-----

From: Conetta.Benny@epamail.epa.gov
[mailto:Conetta.Benny@epamail.epa.gov]
Sent: Wednesday, July 20, 2005 3:51 PM
To: Blaha, Scott R (Corporate)
Cc: Ippolito, Barbara (Corporate); Gibson, Bob (Corporate); Sauda,
Donald (Corporate, non-ge); Deanna Ripstein (E-mail);
garbarini.doug@epamail.epa.gov; fischer.douglas@epamail.epa.gov;
Haggard, John (Corporate); Doody, J Paul (Corporate, non-ge); William L.
Daigle (E-mail); JMulligan@PIRNIE.COM
Subject: Re: Treatability Study CAM

Hi Scott. A few quick thoughts from our team and a question at the end.
Nothing that should affect the proposed tests.

Two things stand out in the CAM. The first is that the SOP is significantly different from that recommended by the ACOE in Chapter 3 of EM 1110-2-5027 dated Sept. 87. The Corps manual recommends that long tube settling columns with a diameter of 8 inches or so be used rather than the 2 liter graduated cylinder described in the CAM. Secondly, the SOP calls for recording the interface between the solids and relatively clear water in the graduated cylinder at very frequent time interval of from 1 to 5 minutes. Unless the sediment sample is very dilute, a few hours will probably be needed before any measurable change in the height of the interface will be noted (provided any interface forms) and any significant settling will require 12 hours or more.

The Corps manual specifically states that the use of a small cylinder such as GE is proposing is not acceptable for design purposes, as wall effects for columns of small diameter affect zone settling velocities and behavior. Data gathered using a small diameter graduated cylinder will not accurately reflect field behavior.

We were curious as to why the testing for this task is different than the standard Corps testing procedures. Just trying to get a better understanding of why the tests are being run this way.

Thanks.

CC: "Ippolito, Barbara (Corporate)" <Barbara.Ippolito@corporate.ge.com>, "Gibson, Bob (Corporate)" <bob.gibson@corporate.ge.com>, "Sauda, Donald (Corporate, non-ge)" <dfs@bbl-inc.com>, "Deanna Ripstein (E-mail)" <dmr13@health.state.ny.us>, <garbarini.doug@epamail.epa.gov>, <fischer.douglas@epamail.epa.gov>, "Haggard, John (Corporate)" <john.haggard@corporate.ge.com>, "Doody, J Paul (Corporate, non-ge)" <jpd@bbl-inc.com>, "William L. Daigle (E-mail)"

<wldaigle@gw.dec.state.ny.us>, <JMulligan@PIRNIE.COM>

Exhibit B

Analytical Data Tables (Electronic)



TABLE 1
GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT WATER SAMPLE DATA

Sample ID	Date Collected	Units	Total PCBs (Congener)	Total PCBs (Aroclor)	Total Organic Carbon	Total Suspended Solids
G1-00	4/26/2005	mg/L	NA	0.000065 U	NA	NA
P1-00	4/26/2005	mg/L	NA	0.000065 U	NA	NA
Y1-00	4/26/2005	mg/L	NA	0.013	NA	NA
RSSCT FEED	4/27/2005	mg/L	NA	NA	NA	NA
G1-02	4/28/2005	mg/L	NA	0.000065 U	NA	NA
P1-02	4/28/2005	mg/L	NA	0.000065 U	NA	NA
Y1-02	4/28/2005	mg/L	NA	0.012	NA	NA
G1-05	5/1/2005	mg/L	NA	0.000065 U	NA	NA
P1-05	5/1/2005	mg/L	NA	0.000065 U	NA	NA
Y1-05	5/1/2005	mg/L	NA	0.0030	NA	NA
G1-07	5/3/2005	mg/L	0.00000934 U	NA	1.74	1.00 U
G2-07	5/3/2005	mg/L	0.00000934 U	NA	0.966 U	1.00 U
P1-07	5/3/2005	mg/L	0.00000934 U	NA	1.73	1.00 U
P2-07	5/3/2005	mg/L	0.00000934 U	NA	0.966 U	1.00 U
Y1-07	5/3/2005	mg/L	0.00327	NA	2.85	1.00 U
Y2-07	5/3/2005	mg/L	0.00315	NA	2.67	1.00 U
FEED 0-7	5/4/2005	mg/L	NA	0.0089	NA	NA
G1-08	5/4/2005	mg/L	NA	0.000065 U	NA	NA
P1-08	5/4/2005	mg/L	NA	0.000065 U	NA	NA
Y1-08	5/4/2005	mg/L	NA	0.0055	NA	NA
G1-12	5/8/2005	mg/L	NA	0.000065 U	NA	NA
P1-12	5/8/2005	mg/L	NA	0.0000087 J	NA	NA
Y1-12	5/8/2005	mg/L	NA	0.0056	NA	NA
FB-13	5/9/2005	mg/L	0.00000934 U	NA	NA	NA
G1-13	5/9/2005	mg/L	0.00000934 U	NA	1.97	1.00 U
G2-13	5/9/2005	mg/L	0.00000934 U	NA	0.980	1.00 U
P1-13	5/9/2005	mg/L	0.0000167 J	NA	1.98	1.00
P2-13	5/9/2005	mg/L	0.00000934 U	NA	1.14	1.00 U
Y1-13	5/9/2005	mg/L	0.00431	NA	2.81	1.00 U
Y2-13	5/9/2005	mg/L	0.00358	NA	2.49	1.00 U
G1-15	5/11/2005	mg/L	NA	0.000065 U	NA	NA
P1-15	5/11/2005	mg/L	NA	0.000013 J	NA	NA
Y1-15	5/11/2005	mg/L	NA	0.0058	NA	NA
FEED 8-15	5/12/2005	mg/L	NA	0.0067	NA	NA
G1-16	5/12/2005	mg/L	0.00000934 U	NA	1.86	1.00 U
G2-16	5/12/2005	mg/L	0.00000934 U	NA	0.966 U	1.00 U
P1-16	5/12/2005	mg/L	0.0000124 J	NA	1.98	1.00 U
P2-16	5/12/2005	mg/L	0.00000934 U	NA	1.36	1.00 U
Y1-16	5/12/2005	mg/L	0.00265	NA	2.58	1.00 U
Y2-16	5/12/2005	mg/L	0.00273	NA	2.56	1.00 U
FB-20	5/16/2005	mg/L	NA	NA	0.966 U	1.00 U
G1-19	5/16/2005	mg/L	NA	0.000065 U	NA	NA
G1-20	5/16/2005	mg/L	0.00000934 U	NA	1.93	1.00 U
G2-20	5/16/2005	mg/L	0.00000934 U	NA	1.11	1.00 U
P1-19	5/16/2005	mg/L	NA	0.000013 J	NA	NA
P1-20	5/16/2005	mg/L	0.00000934 U	NA	1.90	1.30
P2-20	5/16/2005	mg/L	0.00000934 U	NA	1.66	1.00 U
Y1-19	5/16/2005	mg/L	NA	0.0042	NA	NA
Y1-20	5/16/2005	mg/L	0.00295	NA	2.33	1.00
Y2-20	5/16/2005	mg/L	0.00286	NA	2.45	1.00 U
G1-21	5/17/2005	mg/L	NA	0.000065 U	NA	NA
G2-21	5/17/2005	mg/L	NA	0.000065 U	NA	NA
P1-21	5/17/2005	mg/L	NA	0.000065 U	NA	NA
P2-21	5/17/2005	mg/L	NA	0.000065 U	NA	NA
Y1-21	5/17/2005	mg/L	NA	0.018	NA	NA
Y2-21	5/17/2005	mg/L	NA	0.017	NA	NA
G1-22	5/18/2005	mg/L	0.00000934 U	NA	2.58	1.00 U

TABLE 1
GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT WATER SAMPLE DATA

Sample ID	Date Collected	Units	Total PCBs (Congener)	Total PCBs (Aroclor)	Total Organic Carbon	Total Suspended Solids
G2-22	5/18/2005	mg/L	0.00000934 U	NA	1.43	1.00 U
P1-22	5/18/2005	mg/L	0.00000934 U	NA	1.96	1.00 U
P2-22	5/18/2005	mg/L	0.00000934 U	NA	1.66	1.10
Y1-22	5/18/2005	mg/L	0.00991	NA	2.51	1.00 U
Y2-22	5/18/2005	mg/L	0.00944	NA	2.21	1.00 U
G1-23	5/19/2005	mg/L	NA	0.0000093 J	NA	NA
G2-23	5/19/2005	mg/L	NA	0.000065 U	NA	NA
P1-23	5/19/2005	mg/L	NA	0.000015 J	NA	NA
P2-23	5/19/2005	mg/L	NA	0.0000087 J	NA	NA
Y1-23	5/19/2005	mg/L	NA	0.012	NA	NA
Y2-23	5/19/2005	mg/L	NA	0.014	NA	NA
FB-24	5/20/2005	mg/L	0.00000934 U	NA	0.966 U	1.00 U
FEED 16-23	5/20/2005	mg/L	NA	0.0081	NA	NA
G1-24	5/20/2005	mg/L	0.00000934 U	NA	2.14	1.00 U
G2-24	5/20/2005	mg/L	0.00000934 U	NA	1.44	1.00 U
P1-24	5/20/2005	mg/L	0.00000934 U	NA	1.98	1.00 U
P2-24	5/20/2005	mg/L	0.00000934 U	NA	1.68	1.00 U
Y1-24	5/20/2005	mg/L	0.00313	NA	2.24	1.00 U
Y2-24	5/20/2005	mg/L	0.00432	NA	2.17	1.00 U
G1-28	5/24/2005	mg/L	NA	0.000065 U	2.04	NA
G2-28	5/24/2005	mg/L	NA	0.000065 U	1.61	NA
P1-28	5/24/2005	mg/L	NA	0.000065 U	2.20	NA
P2-28	5/24/2005	mg/L	NA	0.000065 U	1.64	NA
Y1-28	5/24/2005	mg/L	NA	0.0044	2.39	NA
Y2-28	5/24/2005	mg/L	NA	0.0046	2.42	NA
FEED 24-30	5/26/2005	mg/L	NA	0.0056	NA	NA
G1-30	5/26/2005	mg/L	NA	0.000065 U	NA	NA
G2-30	5/26/2005	mg/L	NA	0.000065 U	NA	NA
P1-30	5/26/2005	mg/L	NA	0.000065 U	NA	NA
P2-30	5/26/2005	mg/L	NA	0.000065 U	NA	NA
Y1-30	5/26/2005	mg/L	NA	0.0052	NA	NA
Y2-30	5/26/2005	mg/L	NA	0.0048	NA	NA
G1-35	5/31/2005	mg/L	NA	0.000065 U	1.76	NA
G2-35	5/31/2005	mg/L	NA	0.000065 U	1.65	NA
P1-35	5/31/2005	mg/L	NA	0.000065 U	1.88	NA
P2-35	5/31/2005	mg/L	NA	0.000065 U	1.67	NA
Y1-35	5/31/2005	mg/L	NA	0.0045	2.06	NA
Y2-35	5/31/2005	mg/L	NA	0.0049	1.92	NA
FEED 31-37	6/2/2005	mg/L	NA	0.0052	NA	NA
G1-37	6/2/2005	mg/L	NA	0.000065 U	1.53	NA
G2-37	6/2/2005	mg/L	NA	0.000065 U	1.38	NA
P1-37	6/2/2005	mg/L	NA	0.000065 U	1.61	NA
P2-37	6/2/2005	mg/L	NA	0.000065 U	1.60	NA
Y1-37	6/2/2005	mg/L	NA	0.0055	1.92	NA
Y2-37	6/2/2005	mg/L	NA	0.0050	2.03	NA
G1-41	6/6/2005	mg/L	NA	0.000065 U	1.64	NA
G2-41	6/6/2005	mg/L	NA	0.000065 U	1.41	NA
P1-41	6/6/2005	mg/L	NA	0.000065 U	1.52	NA
P2-41	6/6/2005	mg/L	NA	0.000065 U	1.46	NA
Y1-41	6/6/2005	mg/L	NA	0.0029	1.50	NA
Y2-41	6/6/2005	mg/L	NA	0.0036	1.47	NA
FEED 38-44	6/9/2005	mg/L	NA	0.0042	NA	NA
G1-44	6/9/2005	mg/L	NA	0.000065 U	1.41	NA
G2-44	6/9/2005	mg/L	NA	0.000065 U	1.35	NA
P1-44	6/9/2005	mg/L	NA	0.000065 U	1.62	NA
P2-44	6/9/2005	mg/L	NA	0.000065 U	1.10	NA
Y1-44	6/9/2005	mg/L	NA	0.0031	1.42	NA

TABLE 1
GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT WATER SAMPLE DATA

Sample ID	Date Collected	Units	Total PCBs (Congener)	Total PCBs (Aroclor)	Total Organic Carbon	Total Suspended Solids
Y2-44	6/9/2005	mg/L	NA	0.0031	1.56	NA
FEED 45-50	6/15/2005	mg/L	NA	0.0033	NA	NA
G1-50	6/15/2005	mg/L	NA	0.000065 U	1.60	NA
P1-50	6/15/2005	mg/L	NA	0.000065 U	1.46	NA
Y1-50	6/15/2005	mg/L	NA	0.0020 J	1.93	NA
FEED 51-57	6/22/2005	mg/L	NA	0.0052	NA	NA
G1-57	6/22/2005	mg/L	NA	0.000065 U	1.18	NA
P1-57	6/22/2005	mg/L	NA	0.000065 U	1.13	NA
Y1-57	6/22/2005	mg/L	NA	0.0045	1.59	NA
FEED 58-64	6/29/2005	mg/L	NA	0.0036	NA	NA
G1-64	6/29/2005	mg/L	NA	0.000065 U	0.966 U	NA
P1-64	6/29/2005	mg/L	NA	0.000065 U	0.966 U	NA
Y1-64	6/29/2005	mg/L	NA	0.0032	0.966 U	NA
FEED 64-71	7/6/2005	mg/L	NA	0.0031	NA	NA
G1-71	7/6/2005	mg/L	NA	0.000065 U	2.89 U	NA
P1-71	7/6/2005	mg/L	NA	0.000065 U	5.73 U	NA
Y1-71	7/6/2005	mg/L	NA	0.0018	3.30 U	NA
FEEED 72-78	7/13/2005	mg/L	NA	0.0034	NA	NA
G1-78	7/13/2005	mg/L	NA	0.000065 U	2.81	NA
P1-78	7/13/2005	mg/L	NA	0.000065 U	2.72	NA
Y1-78	7/13/2005	mg/L	NA	0.0036	3.44	NA

Notes:

1. Samples were collected by Waste Stream Technology, Inc., and were submitted to Northeast Analytical Services, Inc. for analysis.
2. U = Indicates the constituent was not detected. The value preceding the U indicates the laboratory quantitation limit.
3. As specified in the *Treatability Studies Work Plan* (Blasland, Bouck & Lee, Inc. [BBL], 2004), data validation was performed on approximately 10% of the analytical data set.
4. mg/L = milligrams per liter.
5. NA - Not analyzed.
6. **Laboratory Data Qualifiers:**
 Organics (PCBs)
 J - Indicates an estimated value less than the practical quantitation limit (PQL).
7. **Sample ID Legend:**
 - FB = field blank.
 - FEED = composite of feed water for the days shown.
 - G1 = single column with Norit carbon.
 - G2 = double column with Norit carbon.
 - P1 = single column with Calgon carbon.
 - P2 = double column with Calgon carbon.
 - Y1 = single blank column.
 - Y2 = double blank column.
8. On 4/27/05, BBL collected a sample of RSSCT feed water and submitted the sample to Severn Trent Laboratories for analysis of mercury. The result was 0.00000051 mg/L total mercury.

Exhibit C

Waste Stream Field Logs (Electronic)



GE - Hudson River

6/6/2005

Slurries available for Settling Tests:

Sample Name	Approx. Volume	% Solids
S2-2-HC-15-2-OF SS	4 gal	10.94
S3-4-HC-15-1-OF SS	7 gal	14.45
S3-4-HC-25-2-OF SS	14 gal	21.15
S2-2-HC-25-3 OF	22 gal	12.28
S3-4-HC-25-4 OF	30 gal	4.65
(S-4) 10% OF	33 gal	4.35
(S-4) 15% OF	35 gal	6.11
S2-2-07 <#100 (15%)	2 gal	5.03
S2-2-07 <#200 (15%)	2 gal	3.18
S2-2-07 <#400 (15%)	2 gal	2.36
S2-2-08 <#100	2 gal	14.35
S2-2-07 <#200	1 gal	5.5
S2-2-07 <#400	1.5 L	3.84

GE Hudson River

Polymer Testing

S2-2-07 < #200 (15%) slurry at 3.24 % solids used for testing.

All tests were initially treated with 150ppm Developmental E.

Additive and Dosage	Comments
AE 1147 / 5 ppm	No change in floc, settles slower
AE 1147 / 10 ppm	Chunkier floc, settles faster
AE 1147 / 15 ppm	Same as above
AE 1147 / 20 ppm	Better settling speed
AE 1147 / 25 ppm	Same as above
AE 1147 / 30 ppm	Slightly better settling speed
AE 1147 / 35 ppm	Settling slightly slower
AE 1147 / 40 ppm	Settling slightly slower
AE 1115 / 5 ppm	Chunkier floc, settles faster
AE 1115 / 10 ppm	Better settling speed
AE 1115 / 15 ppm	Better settling speed
AE 1115 / 20 ppm	Better settling speed
AE 1115 / 25 ppm	Slightly better settling speed
AE 1115 / 30 ppm	Same as above
AE 1115 / 35 ppm	Same as above
AE 1115 / 40-45 ppm	Same as above
AE 1115 / 50 ppm	Same as above, floc size may be slightly bigger
AE 1115 / 55-75 ppm	Slower settling speed, floc size decreases.
AE 1117 / 5 ppm	Chunkier floc, settles faster
AE 1117 / 10 ppm	Better settling speed
AE 1117 / 15 ppm	Better settling speed
AE 1117 / 20 ppm	Same as above
AE 1117 / 25 ppm	Same as above
AE 1117 / 30 ppm	Same as above
AE 1117 / 35 ppm	Slightly better settling speed
AE 1117 / 40-50 ppm	Slower settling speed, floc size decreases.

Additive and Dosage	Comments
AE 1125 / 5 ppm	Slightly chunkier, slightly faster settling
AE 1125 / 10 ppm	Chunkier floc, settles faster
AE 1125 / 15 ppm	Better settling speed
AE 1125 / 20 ppm	Better settling speed
AE 1125 / 25 ppm	Same as above
AE 1125 / 30 ppm	Slightly better settling speed
AE 1125 / 35 ppm	Same as above
AE 1125 / 40 ppm	Same as above
AE 1125 / 45-50 ppm	Floc size decreases
AE1128P / 5 ppm	No significant change
AE1128P / 10 ppm	Slightly chunkier, slightly faster settling
AE1128P / 15 ppm	Better settling speed
AE1128P / 20 ppm	Same as above
AE1128P / 25 ppm	Same as above
AE1128P / 30 ppm	Better settling speed
AE1128P / 35-50 ppm	Same as above
AE 1138 / 5 ppm	No significant change
AE 1138 / 10 ppm	Chunkier floc, settles faster
AE 1138 / 15 ppm	Slightly better settling speed
AE 1138 / 20 ppm	Same as above
AE 1138 / 25 ppm	Better settling speed
AE 1138 / 30 ppm	Chunkier floc, settles faster
AE 1138 / 35 ppm	Same as above
AE 1138 / 40-50 ppm	Same as above
AE 1138 / 55-75 ppm	Same as above, cloudier supernatant
AE 1700 / 5 ppm	Chunkier floc, settles faster
AE 1700 / 10 ppm	Better settling speed
AE 1700 / 15 ppm	Better settling speed
AE 1700 / 20 ppm	Better settling speed
AE 1700 / 25 ppm	Same as above
AE 1700 / 30 ppm	Better settling speed
AE 1700 / 35-50 ppm	Same as above

Additive and Dosage	Comments
AE 1701 / 5 ppm	Much chunkier floc, settles faster
AE 1701 / 10 ppm	Better settling speed
AE 1701 / 15-35 ppm	Same as above
AE 1701 / 40-50 ppm	Supernatant gets slimy
AE 1702 / 5 ppm	Slightly chunkier floc, settles faster
AE 1702 / 10 ppm	Chunkier floc, settles faster
AE 1702 / 15 ppm	Better settling speed
AE 1702 / 20-50 ppm	Same as above
AE 1703 / 5 ppm	Much chunkier floc, settles faster
AE 1703 / 10 ppm	Better settling speed
AE 1703 / 15-50 ppm	Same as above
CE 2651 / 5 ppm	Slightly chunkier floc, settles faster
CE 2651 / 10 ppm	Better settling speed
CE 2651 / 15-50 ppm	Same as above
CE 2676 / 5 ppm	Chunkier floc, settles faster
CE 2676 / 10-15 ppm	Same as above
CE 2676 / 20 ppm	Slightly chunkier floc, settles faster
CE 2676 / 25-50 ppm	Same as above
CE 2688 / 5 ppm	Chunkier floc, settles faster
CE 2688 / 10-15 ppm	Same as above
CE 2688 / 20 ppm	Slightly chunkier floc, settles faster
CE 2688 / 25-50 ppm	Same as above

GE Hudson River

Slurry Settling Tests - 100 mL Graduated Cylinder

Settling Tests -- Determine Optimum Dose of Coagulant (Dev. E)

6/14/2005

Used S2-2-07 <#200 (15%) slurry at 3.30% solids for the following settling tests; 100 mL graduated cylinders. Slurry and polymer were mixed by inversion 10 times.

Time	Mudline Level (mL)					
	50ppm Dev. E	100ppm Dev. E	150ppm Dev. E	200ppm Dev. E	400ppm Dev. E	600ppm Dev. E
0:00:00	100	100	100	100	100	100
0:01:00	98	96	94	95	97	98
0:02:00	97	94	89	91	95	96
0:03:00	96	91	81	88	94	95
0:04:00	94	88	73	83	92	93
0:05:00	93	85	67	79	90	92
0:06:00	91	81	61	75	88	91
0:07:00	89	77	56	71	86	90
0:08:00	86	74	53	66	84	88
0:09:00	83	71	50	62	82	87
0:10:00	80	68	48	60	79	85
0:11:00	77	65	46	57	77	84
0:12:00	73	63	44	55	75	82
0:13:00	71	61	43	53	73	81
0:14:00	68	59	42	51	70	80
0:15:00	66	57	41	49	68	78
0:16:00	65	56	41	48	66	77
0:17:00	63	54	40	47	64	76
0:18:00	61	53	39	46	62	74
0:19:00	60	52	39	45	60	73
0:20:00	59	51	38	44	59	72
24:00:00	22.5	27	31	32	32	33

Observations: Supernatant was clear and colorless in the 150ppm, 200ppm, 400ppm, and 600ppm tests. Supernatant in the 100ppm test was clear and colorless with particles clinging to the sides of the graduated cylinder. Supernatant in the 50ppm test was slightly cloudy.

The floc size went as follows:

Chunkiest

Finest

150ppm----100ppm 200ppm----50ppm 400ppm----600ppm

Settling Tests -- Determine Optimum Dose of Flocculant

7/5/2005

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times followed by flocculant addition and mixing by inversion 10 times.

Time	Mudline Level (mL)				
	10 ppm CE2676	20 ppm CE2676	30 ppm CE2676	40 ppm CE2676	50 ppm CE2676
0:00:00	100	100	100	100	100
0:01:00	93	78	63	58	53
0:01:30	88	64	54	51	48
0:02:00	85	59	50	48	46
0:02:30	80	54	48	46	45
0:03:00	76	51	46	45	44
0:03:30	71	48	45	44	43
0:04:00	67	47	44	43	42
0:04:30	64	45	43	42	42
0:05:00	61	44	42	42	42
0:05:30	59	43	41	41	41
0:06:00	56	43	41	41	41
0:07:00	54	42	41	41	41
0:08:00	50	41	41	41	41
0:10:00	46	40	40	40	40
0:12:00	44	39	39	40	40
0:14:00	42	39	39	39	39
0:17:00	40	38	38	39	39
0:20:00	39	38	38	39	39
0:23:00	38	38	38	39	39
0:33:00	36	37	38	39	39
0:43:00	36	37	38	39	39
1:03:00	35	37	37	38	38
1:33:00	35	36	37	38	38
2:33:00	34	36	37	37	38
4:33:00	34	36	36	37	37
24:00:00	32	34	35	35	35

Observations: Floc size increases with higher doses of CE2676.

Supernatant is clear with a few floaties on top.

Settling Tests -- Determine Optimum Dose of Flocculant

7/5/2005

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times followed by flocculant addition and mixing by inversion 10 times.

Time	Mudline Level (mL)				
	10 ppm AE1125	20 ppm AE1125	30 ppm AE1125	40 ppm AE1125	50 ppm AE1125
0:00:00	100	100	100	100	100
0:00:30	91	63	51	51	50
0:01:00	83	52	48	48	48
0:01:30	72	48	45	46	46
0:02:00	64	45	45	46	46
0:02:30	60	45	44	45	45
0:03:00	55	44	44	45	45
0:03:30	52	43	43	44	44
0:04:00	49	43	43	44	44
0:04:30	48	43	43	44	44
0:05:00	46	42	43	44	44
0:06:00	44	42	43	44	44
0:07:00	42	41	43	43	43
0:08:00	41	41	42	43	43
0:09:00	40	41	42	43	43
0:10:00	39	41	42	43	43
0:12:00	38	41	42	43	43
0:17:00	37	40	42	43	43
0:22:00	36	40	41	42	43
0:32:00	36	40	41	42	43
0:42:00	35	40	40	42	42
0:52:00	35	39	40	41	42
1:12:00	35	39	40	41	42
1:32:00	34	39	40	41	42
2:32:00	34	39	39	40	41
4:32:00	34	38	39	40	41
24:00:00	32	36	37	38	39

Observations: Floc size increases with higher doses of AE1125.

Supernatant is clear with a few floaties on top in doses 10ppm and 20ppm.

Supernatant is slightly cloudy with solids clinging to the sides of the cylinder in doses 30ppm, 40ppm, and 50ppm.

Settling Tests -- Determine Optimum Dose of Flocculant

7/5/2005

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times followed by flocculant addition and mixing by inversion 10 times.

Time	Mudline Level (mL)				
	10 ppm AE1147	20 ppm AE1147	30 ppm AE1147	40 ppm AE1147	50 ppm AE1147
0:00:00	100	100	100	100	100
0:00:30	90	75	70	65	63
0:01:00	84	65	58	55	54
0:01:30	75	57	51	49	48
0:02:00	67	52	48	47	46
0:02:30	60	48	45	44	43
0:03:00	56	46	44	43	42
0:03:30	52	44	42	42	42
0:04:00	50	44	42	42	41
0:04:30	48	42	41	41	41
0:05:00	47	42	40	41	40
0:05:30	45	41	40	41	40
0:06:00	44	40	40	41	40
0:06:30	43	40	40	41	40
0:07:00	42	40	39	40	39
0:08:00	41	39	39	39	38
0:09:00	40	38	39	39	38
0:10:00	39	38	38	39	38
0:12:00	38	38	38	39	38
0:14:00	37	37	38	38	38
0:19:00	36	37	37	38	37
0:24:00	35	36	37	38	37
0:29:00	35	36	37	38	37
0:34:00	35	36	37	37	37
0:44:00	34	35	36	37	36
0:54:00	34	35	36	37	36
1:04:00	34	35	36	37	36
1:24:00	34	35	36	37	36
2:24:00	34	35	35	36	36
4:24:00	33	34	35	35	35
24:00:00	32	33	33	34	33

Observations: Floc size increases with higher doses of AE1147.

Supernatant is clear with a few floaties on top.

Control Settling Test

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times.

7/5/2005

Time	Mudline Level (mL)
	150 ppm Dev. E
0:00:00	100
0:01:00	97
0:02:00	95
0:03:00	92
0:04:00	90
0:05:00	87
0:06:00	83
0:07:00	80
0:08:00	77
0:09:00	74
0:10:00	71
0:11:00	68
0:12:00	65
0:13:00	62
0:14:00	60
0:15:00	58
0:16:00	56
0:17:00	54
0:18:00	52
0:19:00	51
0:20:00	49
24:00:00	29

7/6/2005

Time	Mudline Level (mL)
	150 ppm Dev. E
0:00:00	100
0:01:00	98
0:02:00	95
0:03:00	93
0:04:00	90
0:05:00	86
0:06:00	83
0:07:00	79
0:08:00	75
0:09:00	72
0:10:00	69
0:11:00	65
0:12:00	64
0:13:00	61
0:14:00	58
0:15:00	56
0:16:00	54
0:17:00	53
0:18:00	51
0:19:00	49
0:20:00	48
0:21:00	47
0:22:00	46
0:23:00	45
0:24:00	44
0:26:00	43
0:28:00	42
0:30:00	41
0:35:00	39
0:40:00	37
0:50:00	36
1:10:00	34
1:30:00	33
2:00:00	32
4:00:00	31
24:00:00	30

Settling Tests -- Determine Optimum Flocculant

7/7/2005

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times followed by flocculant addition and mixing by inversion 10 times.

Time	Mudline Level (mL)				
	30 ppm AE1115	30 ppm AE1117	30 ppm AE1128	30 ppm AE1138	30 ppm AE1700
0:00	100	100	100	100	100
0:00:15	63	75	78	89	62
0:00:30	51	58	64	73	52
0:01:00	47	50	49	60	47
0:01:30	44	46	46	53	45
0:02:00	43	44	44	49	44
0:02:30	43	43	44	46	43
0:03:00	42	43	44	45	43
0:03:30	42	42	43	43	42
0:04:00	42	42	43	43	42
0:04:30	42	42	43	43	42
0:05:00	41	41	43	42	42
0:06:00	41	41	43	42	42
0:07:00	41	41	42	41	42
0:08:00	41	40	42	41	41
0:10:00	40	40	41	40	41
0:12:00	40	40	41	40	41
0:15:00	40	40	41	40	41
0:20:00	40	39	41	39	40
0:25:00	40	39	41	39	40
0:30:00	39	39	41	39	40
0:40:00	39	39	41	39	40
1:00:00	39	39	40	38	40
2:00:00	38	38	40	38	39
4:00:00	38	38	39	37	39
6:00:00	37	37	39	37	39
24:00:00	36	36	38	36	38

Observations: AE1115 supernatant is clear with a few floaties on top. Visually, one of the best.
AE1117 supernatant is clear with a little sticking on the sides and a few floaties on top.
AE1128 supernatant is clear with some sticking on the sides and a few floaties on top.
AE1138 supernatant is clear with some sticking on the sides and a few floaties on top.
AE1700 supernatant is clear with chunks sticking on the sides and a few floaties on top.

Settling Tests -- Determine Optimum Flocculant

7/7/2005

Used S2-2-08 <#200 slurry at 3.39 % solids for the following settling tests; 100 mL graduated cylinders used. Slurry and 150 ppm of Developmental E were mixed by inversion 10 times followed by flocculant addition and mixing by inversion 10 times.

Time	Mudline Level (mL)				
	30 ppm AE1701	30 ppm AE1702	30 ppm AE1703	30 ppm CE2651	30 ppm CE2688
0:00:00	100	100	100	100	100
0:00:15	59	61	97	91	75
0:00:30	52	52	95	81	60
0:01:00	49	48	92	65	52
0:01:30	48	47	85	56	47
0:02:00	48	46	80	51	46
0:02:30	47	46	73	48	45
0:03:00	47	45	69	46	44
0:03:30	47	45	69	44	44
0:04:00	47	45	60	43	44
0:04:30	46	45	56	43	43
0:05:00	46	44	52	42	43
0:06:00	46	44	49	41	43
0:07:00	46	44	47	40	42
0:08:00	46	44	45	39	42
0:10:00	46	44	42	39	42
0:12:00	46	44	41	38	42
0:15:00	46	43	39	38	42
0:20:00	45	43	38	38	42
0:25:00	45	43	37	37	41
0:30:00	45	43	37	37	41
0:40:00	45	42	36	37	41
1:00:00	44	42	35	36	41
2:00:00	43	41	35	36	40
4:00:00	43	40	34	35	39
6:00:00	42	40	34	34	39
24:00:00	41	39	33	33	38

Observations: AE1701 supernatant is clear with a lot of sticking and a few floaties on top.

AE1702 supernatant is clear with a lot of sticking and a few floaties on top.

AE1703 supernatant is clear with a layer of floaties on top.

CE2651 supernatant is clear with a few floaties on top. Visually, one of the best.

CE2688 supernatant is clear with a few floaties on top. Visually, one of the best.

GE Hudson River

Slurry Settling Tests - 2 L Graduated Cylinder

2000 mL graduated cylinder tests
6/7/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-01 S2-2-07 <#200 (15% init. solids) 3.24% solids 600 ppm Developmental E	0:00:00	2000	1:09:34	1300	Mixed slurry and polymer with 5 one second strokes with a plunger. Supernatant is clear and colorless. Some particles are floating on the surface.
	0:00:57	1980	1:11:55	1280	
	0:03:11	1960	1:14:19	1260	
	0:05:50	1940	1:16:44	1240	
	0:07:24	1920	1:19:12	1220	
	0:09:18	1900	1:21:45	1200	
	0:11:10	1880	1:24:24	1180	
	0:12:58	1860	1:27:05	1160	
	0:14:56	1840	1:29:50	1140	
	0:16:52	1820	1:32:49	1120	
	0:18:44	1800	1:35:47	1100	
	0:20:34	1780	1:39:02	1080	
	0:22:30	1760	1:42:06	1060	
	0:24:19	1740	1:45:37	1040	
	0:26:23	1720	1:49:29	1020	
	0:28:09	1700	1:53:22	1000	
	0:30:05	1680	1:58:20	980	
	0:32:00	1660	2:01:54	960	
	0:34:03	1640	2:06:48	940	
	0:35:54	1620	2:12:00	920	
	0:37:58	1600	2:17:34	900	
	0:39:52	1580	2:23:51	880	
	0:41:48	1560	2:31:04	860	
	0:43:54	1540	2:40:54	840	
	0:45:53	1520	2:47:44	820	
	0:47:54	1500	2:59:28	800	
	0:49:53	1480	3:11:18	780	
	0:51:55	1460	3:24:48	760	
	0:54:08	1440	3:40:12	740	
	0:56:13	1420	3:59:57	720	
	0:58:25	1400	4:29:53	700	
	1:00:29	1380	5:00:04	680	
	1:02:44	1360	5:45:14	660	
	1:05:02	1340	6:49:12	640	
	1:07:18	1320	24:00:00	580	

6/7/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-02 S2-2-07 <#200 (15% init. solids) 3.24% solids 600 ppm Developmental E	0:00:00	2000	1:12:46	1320	Mixed slurry and polymer with 9 one second strokes with a plunger. Supernatant is clear and colorless. Some particles are floating on the surface.
	0:01:03	1980	1:15:27	1300	
	0:03:34	1960	1:18:19	1280	
	0:05:40	1940	1:20:44	1260	
	0:07:44	1920	1:24:38	1240	
	0:09:41	1900	1:27:24	1220	
	0:11:30	1880	1:29:08	1200	
	0:13:28	1860	1:32:19	1180	
	0:15:15	1840	1:35:23	1160	
	0:17:09	1820	1:38:28	1140	
	0:19:09	1800	1:42:17	1120	
	0:21:13	1780	1:45:52	1100	
	0:23:15	1760	1:49:22	1080	
	0:25:17	1740	1:53:13	1060	
	0:27:30	1720	1:57:21	1040	
	0:29:26	1700	2:01:32	1020	
	0:31:37	1680	2:05:24	1000	
	0:33:33	1660	2:10:12	980	
	0:35:33	1640	2:15:08	960	
	0:37:43	1620	2:21:10	940	
	0:40:05	1600	2:26:24	920	
	0:42:22	1580	2:32:41	900	
	0:44:29	1560	2:39:54	880	
	0:46:52	1540	2:48:05	860	
	0:49:02	1520	2:56:53	840	
	0:51:14	1500	3:04:17	820	
	0:53:17	1480	3:15:12	800	
	0:55:42	1460	3:29:06	780	
	0:58:39	1440	3:45:28	760	
	1:00:56	1420	4:02:02	740	
	1:02:59	1400	4:19:41	720	
	1:05:10	1380	4:42:52	700	
	1:08:07	1360	24:00:00	580	
	1:10:09	1340			

These tests were performed with slurry diluted to the desired percent solids with tap water.

6/7/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-03 S2-2-07 <#200 (15% init. solids) 1.10 % solids 200ppm Developmental E	0:00:00	2000	0:06:43	900	Mixed slurry and polymer with 5 one second strokes with a plunger. Supernatant is cloudy, dirty. Some particles are floating on the surface.
	0:00:33	1900	0:08:10	800	
	0:00:58	1800	0:10:23	700	
	0:01:25	1700	0:15:56	600	
	0:01:54	1600	0:19:49	500	
	0:02:22	1500	0:31:33	400	
	0:02:53	1400	0:59:08	320	
	0:03:27	1300	1:11:20	300	
	0:04:04	1200	1:41:09	280	
	0:04:51	1100	3:06:47	260	
	0:05:44	1000	24:00:00	240	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-04 S2-2-07 <#200 (15% init. solids) 1.10 % solids 200ppm Developmental E	0:00:00	2000	0:20:02	540	Mixed slurry and polymer with 9 one second strokes with a plunger. Supernatant is a little cloudy and dirty. Some particles are floating on the surface.
	0:00:34	1900	0:21:45	520	
	0:01:02	1800	0:23:33	500	
	0:01:49	1700	0:25:42	480	
	0:01:56	1600	0:28:06	460	
	0:02:49	1500	0:31:17	440	
	0:03:00	1400	0:34:25	420	
	0:03:37	1300	0:38:36	400	
	0:04:20	1200	0:43:56	380	
	0:05:07	1100	0:50:41	360	
	0:06:04	1000	0:59:20	340	
	0:07:12	900	1:10:00	320	
	0:08:56	800	1:30:28	300	
	0:11:42	700	2:16:49	280	
	0:15:56	600	3:15:49	260	
	0:17:11	580	24:00:00	245	
	0:18:38	560			

6/14/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-05 S2-2-HC-15-2 OF Settled Solids 3.16 % solids 600ppm Developmental E	0:00:00	2000	1:07:26	1740	Mixed slurry and polymer with 9 one second strokes with a plunger. Supernatant is clear and colorless. Some particles are floating on the surface. After settling overnight, supernatant turned a slight rusty color.
	0:03:13	1980	1:12:48	1720	
	0:09:52	1960	1:17:50	1700	
	0:15:38	1940	1:22:21	1680	
	0:21:23	1920	1:27:34	1660	
	0:27:33	1900	1:32:11	1640	
	0:31:48	1880	2:01:43	1520	
	0:37:36	1860	3:37:18	1190	
	0:42:41	1840	4:04:35	1120	
	0:48:47	1820	4:24:11	1080	
	0:54:08	1800	4:59:19	1020	
	0:57:32	1780	24:00:00	710	
	1:02:48	1760			

6/16/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-06 S2-2-08 < #200 (15%) 3.03 % solids 150ppm Developmental E	0:00:00	2000	2:00:00	730	Mixed slurry and polymer with 9 one second strokes with a plunger. Supernatant is clear and colorless. Some particles are floating on the surface. TSS of supernatant at 1:00:00 was 4ppm.
	0:05:00	1890	2:10:00	710	
	0:10:00	1770	2:20:00	700	
	0:15:00	1690	2:30:00	690	
	0:20:00	1520	2:40:00	680	
	0:25:00	1410	2:50:00	670	
	0:30:00	1310	3:00:00	660	
	0:35:00	1220	3:10:00	650	
	0:40:00	1150	3:20:00	640	
	0:45:00	1095	3:30:00	635	
	0:50:00	1040	3:40:00	630	
	0:55:00	990	4:00:00	620	
	1:00:00	940	4:20:00	610	
	1:10:00	895	4:40:00	600	
	1:20:00	850	5:00:00	595	
	1:30:00	810	6:00:00	585	
	1:40:00	780	7:00:00	575	
	1:50:00	750	24:00:00	530	

7/11/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-07	0:00:00	2012.3	0:09:00	440	
S3-4-HC-25-2-OF	0:00:15	1540	0:10:00	430	
2.51 % solids	0:00:30	1240	0:11:00	430	
61ppm	0:00:45	940	0:13:00	420	
Developmental E	0:01:00	820	0:15:00	410	
15.2ppm	0:01:30	700	0:17:00	400	
AE1115	0:02:00	630	0:20:00	390	
	0:02:30	590	0:25:00	380	
	0:03:00	560	0:30:00	380	
	0:03:30	540	0:45:00	370	
	0:04:00	520	1:00:00	360	
	0:04:30	500	1:30:00	360	
	0:05:00	490	2:30:00	350	
	0:05:30	480	3:30:00	350	
	0:06:00	480	5:00:00	340	
	0:06:30	470	6:30:00	340	
	0:07:00	460	7:30:00	340	
	0:07:30	460	22:30:00	330	
	0:08:00	450	24:00:00	330	
	0:08:30	440			

7/11/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-08	0:00:00	2056.1	0:32:00	1190	
S3-4-HC-25-2-OF	0:01:30	2000	0:34:00	1170	
6.20 % solids	0:02:00	1980	0:36:00	1150	
187ppm	0:03:00	1960	0:38:00	1130	
Developmental E	0:04:00	1920	0:40:00	1120	
46.7ppm	0:05:00	1880	0:42:00	1100	
AE1115	0:06:00	1840	0:45:00	1080	
	0:07:00	1800	0:50:00	1050	
	0:08:00	1770	0:55:00	1030	
	0:09:00	1730	1:00:00	1010	
	0:10:00	1690	1:05:00	990	
	0:11:00	1660	1:10:00	980	
	0:12:00	1620	1:15:00	960	
	0:13:00	1580	1:25:00	940	
	0:14:00	1550	1:35:00	920	
	0:15:00	1520	1:45:00	900	
	0:16:00	1490	1:55:00	895	
	0:17:00	1460	2:15:00	875	
	0:18:00	1440	2:35:00	865	
	0:19:00	1420	2:55:00	845	
	0:20:00	1390	3:15:00	835	
	0:21:00	1370	3:35:00	830	
	0:22:00	1350	4:00:00	820	
	0:23:00	1330	4:30:00	815	
	0:24:00	1310	5:00:00	810	
	0:25:00	1290	6:00:00	800	
	0:26:00	1270	7:20:00	790	
	0:28:00	1250	22:25:00	765	
	0:30:00	1220	24:00:00	765	
					Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with about 25% coverage of floaties on top, turned yellow overnight. Chunky floc.

7/11/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-09 S3-4-HC-25-2-OF 12.60% solids 389ppm Developmental E 97.2ppm AE1115	0:00:00	2116.7			Supernatant is clear and yellow with about 50% coverage of solids on top. Very fine floc.
	6:30:00	2020			
	21:40:00	1810			
	24:00:00	1790			

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-10 S3-4-HC-25-2-OF 18.46 % solids 607ppm Developmental E 151.8ppm AE1115	0:00:00	2182.1			Supernatant is clear and yellow with 100% coverage of solids on top. Very fine floc.
	24:00:00	2110			

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-11 S3-4-HC-25-2-OF 2.51 % solids 61ppm Developmental E 30.4ppm AE1115	0:00:00	2024.4	0:11:00	390	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy, no floaties, turned yellow overnight,. Very chunky floc. Looks very good.
	0:00:10	1260	0:15:00	380	
	0:00:20	760	0:20:00	380	
	0:00:30	630	0:25:00	370	
	0:00:40	580	0:30:00	370	
	0:00:50	550	0:40:00	365	
	0:01:00	530	0:55:00	365	
	0:01:20	500	1:30:00	360	
	0:01:40	480	2:00:00	360	
	0:02:00	460	2:30:00	355	
	0:02:30	440	3:00:00	350	
	0:03:00	430	3:30:00	350	
	0:04:00	420	4:00:00	350	
	0:05:00	410	5:00:00	350	
	0:06:00	400	6:00:00	345	
	0:07:00	400	21:20:00	335	
	0:09:00	390	24:00:00	335	

7/11/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-12	0:00:00	2074.8	0:16:00	965	
S3-4-HC-25-2-OF	0:00:30	1960	0:18:00	950	
6.20 % solids	0:01:00	1840	0:20:00	940	
187ppm	0:01:30	1720	0:23:00	925	
Developmental E	0:02:00	1620	0:28:00	910	
93.4ppm	0:02:30	1510	0:33:00	900	
AE1115	0:03:00	1430	0:40:00	890	
	0:03:30	1360	0:50:00	880	
	0:04:00	1310	1:00:00	870	
	0:04:30	1260	1:10:00	870	
	0:05:00	1220	1:30:00	865	
	0:05:30	1190	1:50:00	860	
	0:06:00	1160	2:10:00	850	
	0:06:30	1140	2:30:00	850	
	0:07:00	1120	3:00:00	845	
	0:07:30	1100	3:30:00	845	
	0:08:00	1090	4:00:00	840	
	0:09:00	1060	5:00:00	840	
	0:10:00	1040	6:00:00	830	
	0:11:00	1020	21:15:00	810	
	0:12:00	1010	24:00:00	810	
	0:14:00	980			

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-13 S3-4-HC-25-2-OF 4.01 % solids 123ppm Developmental E 30.8ppm AE1115	0:00:00	2036.9	0:00:00	770	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with some floaties on top, turned yellow overnight. Chunky floc. Looks good.
	0:00:30	1950	0:19:00	755	
	0:01:00	1900	0:20:00	750	
	0:01:30	1840	0:21:00	740	
	0:02:00	1760	0:22:00	730	
	0:02:30	1690	0:23:00	720	
	0:03:00	1620	0:24:00	715	
	0:03:30	1540	0:25:00	710	
	0:04:00	1460	0:27:00	695	
	0:04:30	1370	0:29:00	680	
	0:05:00	1300	0:31:00	665	
	0:05:30	1240	0:33:00	665	
	0:06:00	1180	0:35:00	660	
	0:06:30	1130	0:38:00	650	
	0:07:00	1090	0:41:00	640	
	0:07:30	1060	0:44:00	635	
	0:08:00	1030	0:49:00	630	
	0:08:30	1000	0:55:00	620	
	0:09:00	980	1:00:00	610	
	0:09:30	960	1:05:00	610	
	0:10:00	940	1:10:00	605	
	0:10:30	920	1:20:00	600	
	0:11:00	905	1:30:00	590	
	0:11:30	890	1:40:00	590	
	0:12:00	870	2:00:00	580	
	0:12:30	860	2:20:00	580	
	0:13:00	850	2:40:00	575	
	0:13:30	840	3:00:00	570	
	0:14:00	830	4:00:00	570	
	0:15:00	810	6:30:00	560	
	0:16:00	800	24:00:00	540	
	0:17:00	790			

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-14 S3-4-HC-25-2-OF 8.56 % solids 252ppm Developmental E 63.1ppm AE1115	0:00:00	2075.6	1:15:00	1450	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and yellow with about 75% coverage of floaties on top, turned yellow. Finer floc. Not so good.
	0:05:30	2000	1:17:00	1445	
	0:07:00	1980	1:20:00	1430	
	0:08:00	1960	1:23:00	1420	
	0:10:00	1930	1:26:00	1410	
	0:12:00	1890	1:29:00	1400	
	0:14:00	1865	1:32:00	1390	
	0:16:00	1840	1:35:00	1380	
	0:18:00	1820	1:38:00	1370	
	0:20:00	1800	1:41:00	1360	
	0:22:00	1780	1:44:00	1355	
	0:24:00	1760	1:47:00	1350	
	0:26:00	1740	1:50:00	1340	
	0:28:00	1730	1:53:00	1330	
	0:30:00	1710	1:56:00	1325	
	0:32:00	1700	1:59:00	1310	
	0:34:00	1680	2:02:00	1310	
	0:36:00	1665	2:05:00	1305	
	0:38:00	1650	2:10:00	1295	
	0:40:00	1640	2:15:00	1285	
	0:42:00	1625	2:20:00	1275	
	0:44:00	1610	2:25:00	1265	
	0:46:00	1600	2:30:00	1260	
	0:48:00	1590	2:35:00	1250	
	0:50:00	1575	2:40:00	1245	
	0:53:00	1560	2:50:00	1230	
	0:55:00	1550	3:00:00	1220	
	0:57:00	1540	3:10:00	1205	
	0:59:00	1530	3:25:00	1195	
	1:01:00	1520	3:30:00	1185	
	1:03:00	1510	3:40:00	1175	
	1:05:00	1500	3:50:00	1170	
	1:07:00	1490	4:20:00	1140	
	1:09:00	1480	5:30:00	1100	
	1:11:00	1470	6:30:00	1080	
	1:13:00	1460	24:00:00	945	

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-15	0:00:00	2049.2	0:09:00	700	
S3-4-HC-25-2-OF	0:00:10	1800	0:11:00	690	
4.01 % solids	0:00:20	1540	0:13:00	680	
123ppm	0:00:30	1300	0:15:00	680	
Developmental E	0:00:40	1160	0:20:00	660	
61.5ppm	0:00:50	1070	0:25:00	660	
AE1115	0:01:00	1000	0:35:00	650	
	0:01:10	960	0:40:00	645	
	0:01:20	920	0:45:00	640	
	0:01:30	900	0:50:00	640	
	0:02:00	840	0:55:00	640	
	0:02:30	810	1:00:00	635	
	0:03:00	780	1:10:00	630	
	0:03:30	770	1:20:00	630	
	0:04:00	760	1:40:00	630	
	0:04:30	740	2:00:00	625	
	0:05:00	730	2:20:00	620	
	0:05:30	720	3:00:00	620	
	0:06:00	720	4:00:00	620	
	0:07:00	710	6:30:00	610	
	0:08:00	700	24:00:00	590	
					Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy with a few floaties on top, turned yellow overnight. Very chunky floc. Looks good.

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-16 S3-4-HC-25-2-OF 8.56 % solids 252ppm Developmental E 126.2ppm AE1115	0:00:00	2100.9	0:26:00	1150	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and yellow with about 20% coverage of floaties on top, turned yellow overnight. Finer floc. Looks okay.
	0:01:00	1980	0:28:00	1140	
	0:02:00	1920	0:30:00	1130	
	0:03:00	1810	0:32:00	1120	
	0:04:00	1700	0:34:00	1115	
	0:05:00	1620	0:37:00	1105	
	0:06:00	1540	0:40:00	1095	
	0:07:00	1480	0:43:00	1090	
	0:08:00	1440	0:46:00	1080	
	0:09:00	1400	0:49:00	1075	
	0:10:00	1360	0:52:00	1070	
	0:11:00	1330	0:55:00	1065	
	0:12:00	1310	1:00:00	1060	
	0:13:00	1290	1:10:00	1050	
	0:14:00	1270	1:20:00	1040	
	0:15:00	1260	1:30:00	1030	
	0:16:00	1240	1:40:00	1025	
	0:17:00	1230	1:50:00	1020	
	0:18:00	1220	2:00:00	1020	
	0:19:00	1210	2:10:00	1015	
	0:20:00	1200	2:30:00	1010	
	0:21:00	1190	3:00:00	1005	
	0:22:00	1180	4:00:00	1000	
	0:23:00	1170	6:30:00	980	
	0:24:00	1160	24:00:00	960	

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-17	0:00:00	2030.3	0:05:30	530	
S3-4-HC-25-2-OF	0:00:10	1840	0:06:00	520	
2.51 % solids	0:00:20	1620	0:07:00	500	
121ppm	0:00:30	1440	0:08:00	490	
Developmental E	0:00:40	1240	0:09:00	480	
15.2ppm	0:00:50	1080	0:10:00	470	
AE1115	0:01:00	980	0:11:00	460	
	0:01:10	920	0:12:00	460	
	0:01:20	840	0:15:00	450	
	0:01:30	800	0:20:00	430	
	0:01:45	760	0:25:00	420	
	0:02:00	720	0:30:00	420	
	0:02:30	660	0:40:00	410	
	0:03:00	630	1:00:00	410	
	0:03:30	600	2:00:00	400	
	0:04:00	570	3:00:00	390	
	0:04:30	560	6:00:00	390	
	0:05:00	540	24:00:00	380	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with very few floaties, turned yellow overnight. Chunky floc. Looks very good.

7/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-18 S3-4-HC-25-2-OF 6.20 % solids 374ppm Developmental E 46.7ppm AE1115	0:00:00	2093.5	0:36:00	1240	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with about 50% coverage of floaties on top, turned yellow overnight. Finer floc. Looks okay.
	0:03:00	2000	0:37:00	1230	
	0:04:00	1980	0:38:00	1220	
	0:05:00	1950	0:39:00	1210	
	0:06:00	1920	0:40:00	1200	
	0:07:00	1890	0:41:00	1200	
	0:08:00	1860	0:43:00	1180	
	0:09:00	1830	0:45:00	1160	
	0:10:00	1800	0:47:00	1150	
	0:11:00	1770	0:49:00	1140	
	0:12:00	1740	0:51:00	1130	
	0:13:00	1710	0:53:00	1120	
	0:14:00	1680	0:55:00	1110	
	0:15:00	1650	0:57:00	1110	
	0:16:00	1620	0:59:00	1090	
	0:17:00	1590	1:01:00	1080	
	0:18:00	1560	1:03:00	1070	
	0:19:00	1540	1:05:00	1060	
	0:20:00	1510	1:07:00	1060	
	0:21:00	1490	1:10:00	1050	
	0:22:00	1470	1:15:00	1030	
	0:23:00	1440	1:20:00	1020	
	0:24:00	1420	1:25:00	1010	
	0:25:00	1400	1:30:00	1000	
	0:26:00	1380	1:40:00	980	
	0:27:00	1360	1:50:00	960	
	0:28:00	1350	2:00:00	950	
	0:29:00	1330	2:10:00	940	
	0:30:00	1310	2:20:00	930	
	0:31:00	1300	2:40:00	920	
	0:32:00	1290	3:00:00	900	
	0:33:00	1280	3:30:00	890	
	0:34:00	1260	6:00:00	860	
	0:35:00	1250	24:00:00	830	

7/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-19	0:00:00	2061.5	0:12:00	1010	
S3-4-HC-25-2-OF	0:00:30	2000	0:13:00	980	
4.01 % solids	0:01:00	1960	0:14:00	950	
246ppm	0:01:30	1910	0:15:00	930	
Developmental E	0:02:00	1860	0:16:00	910	
30.8ppm	0:02:30	1800	0:17:00	890	
AE1115	0:03:00	1750	0:18:00	875	
	0:03:30	1700	0:19:00	860	
	0:04:00	1650	0:21:00	840	
	0:04:30	1590	0:23:00	815	
	0:05:00	1530	0:25:00	800	
	0:05:30	1460	0:27:00	785	
	0:06:00	1400	0:29:00	770	
	0:06:30	1340	0:31:00	760	
	0:07:00	1290	0:35:00	740	
	0:07:30	1250	0:45:00	710	
	0:08:00	1210	1:00:00	690	
	0:08:30	1170	1:20:00	670	
	0:09:00	1140	1:45:00	660	
	0:09:30	1110	2:15:00	650	
	0:10:00	1090	3:00:00	645	
	0:10:30	1065	4:00:00	640	
	0:11:00	1045	7:00:00	630	
	0:11:30	1025	24:00:00	610	

7/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-20	0:00:00	2126.2	0:37:00	1500	
S3-4-HC-25-2-OF	0:05:30	2000	0:39:00	1490	
8.56 % solids	0:06:00	1980	0:41:00	1480	
505ppm	0:07:00	1940	0:43:00	1465	
Developmental E	0:08:00	1900	0:46:00	1450	
63.1ppm	0:09:00	1840	0:50:00	1430	
AE1115	0:10:00	1810	0:55:00	1410	
	0:11:00	1785	1:00:00	1390	
	0:12:00	1760	1:05:00	1370	
	0:13:00	1740	1:10:00	1360	
	0:15:00	1710	1:15:00	1340	
	0:17:00	1685	1:25:00	1315	
	0:19:00	1660	1:45:00	1275	
	0:21:00	1635	2:05:00	1240	
	0:23:00	1615	2:25:00	1220	
	0:25:00	1600	2:45:00	1195	
	0:27:00	1580	3:15:00	1170	
	0:29:00	1560	4:00:00	1120	
	0:31:00	1540	6:00:00	1080	
	0:33:00	1530	7:00:00	1075	
	0:35:00	1515	24:00:00	1000	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-21	0:00:00	2036.4	0:07:00	470	
S3-4-HC-25-2-OF	0:00:10	1600	0:09:00	460	
2.51 % solids	0:00:15	1300	0:11:00	450	
121ppm	0:00:20	1020	0:13:00	450	
Developmental E	0:00:25	860	0:16:00	450	
30.4ppm	0:00:30	800	0:20:00	440	
AE1115	0:00:40	700	0:25:00	440	
	0:00:50	660	0:35:00	440	
	0:01:00	620	1:00:00	430	
	0:01:30	570	2:00:00	420	
	0:02:00	540	3:00:00	420	
	0:02:30	520	5:00:00	410	
	0:03:00	510	7:00:00	410	
	0:05:00	480	24:00:00	400	

7/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-22	0:00:00	2112.2	0:09:00	1080	
S3-4-HC-25-2-OF	0:00:30	1970	0:10:00	1060	
6.20 % solids	0:00:45	1890	0:11:00	1050	
374ppm	0:01:00	1820	0:13:00	1020	
Developmental E	0:01:30	1670	0:15:00	1010	
93.4ppm	0:02:00	1540	0:17:00	1000	
AE1115	0:02:30	1440	0:20:00	980	
	0:03:00	1370	0:25:00	960	
	0:03:30	1310	0:30:00	960	
	0:04:00	1270	0:40:00	940	
	0:04:30	1230	0:50:00	930	
	0:05:00	1200	1:00:00	920	
	0:05:30	1180	1:30:00	920	
	0:06:00	1160	2:30:00	905	
	0:06:30	1140	3:30:00	900	
	0:07:00	1120	5:00:00	890	
	0:07:30	1110	7:00:00	880	
	0:08:00	1100	24:00:00	870	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-23	0:00:00	2073.8	0:05:00	830	
S3-4-HC-25-2-OF	0:00:10	1900	0:05:30	820	
4.01 % solids	0:00:20	1760	0:06:00	810	
246ppm	0:00:30	1600	0:07:00	800	
Developmental E	0:00:40	1450	0:08:00	790	
61.5ppm	0:00:50	1340	0:10:00	780	
AE1115	0:01:00	1260	0:12:00	760	
	0:01:10	1180	0:00:00	750	
	0:01:20	1120	0:20:00	740	
	0:01:30	1080	0:25:00	730	
	0:01:40	1050	0:30:00	730	
	0:01:50	1020	0:45:00	720	
	0:02:00	1000	1:00:00	710	
	0:02:30	950	1:30:00	700	
	0:03:00	910	2:30:00	690	
	0:03:30	880	4:00:00	680	
	0:04:00	860	7:00:00	670	
	0:04:30	840	24:00:00	660	

7/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-24	0:00:00	2151.5	0:22:00	1260	
S3-4-HC-25-2-OF	0:02:00	1960	0:24:00	1240	
8.56 % solids	0:03:00	1870	0:26:00	1230	
505ppm	0:04:00	1780	0:28:00	1220	
Developmental E	0:05:00	1700	0:30:00	1210	
126.2ppm	0:06:00	1630	0:35:00	1180	
AE1115	0:07:00	1580	0:40:00	1170	
	0:08:00	1530	0:45:00	1160	
	0:09:00	1490	0:52:00	1140	
	0:10:00	1450	1:00:00	1130	
	0:11:00	1420	1:30:00	1110	
	0:12:00	1400	2:30:00	1090	
	0:14:00	1360	4:00:00	1080	
	0:16:00	1320	7:00:00	1060	
	0:18:00	1300	24:00:00	1040	
	0:20:00	1270			

7/14/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-25	0:00:00	2018.3	0:05:30	480	
S3-4-HC-25-2-OF	0:00:10	1800	0:06:00	465	
2.51 % solids	0:00:20	1600	0:06:30	460	
61ppm	0:00:30	1400	0:07:30	450	
Developmental E	0:00:40	1180	0:08:00	440	
15.2ppm	0:00:50	1000	0:09:00	430	
AE1115	0:01:00	920	0:10:00	420	
	0:01:10	840	0:11:00	410	
	0:01:20	790	0:12:00	410	
	0:01:30	750	0:14:00	400	
	0:01:45	700	0:16:00	390	
	0:02:00	660	0:18:00	390	
	0:02:15	630	0:25:00	380	
	0:02:30	600	0:35:00	370	
	0:03:00	570	0:45:00	360	
	0:03:30	540	1:00:00	355	
	0:04:00	520	2:00:00	340	
	0:04:30	500	7:00:00	330	
	0:05:00	490	24:00:00	320	

7/14/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-26	0:00:00	2018.3	0:06:00	450	
S3-4-HC-25-2-OF	0:00:10	1740	0:06:30	445	
2.51 % solids	0:00:20	1440	0:07:00	440	
61ppm	0:00:30	1180	0:07:30	430	
Developmental E	0:00:40	940	0:08:00	430	
15.2ppm	0:00:50	830	0:09:00	420	
AE1115	0:01:00	760	0:10:00	415	
	0:01:10	720	0:11:00	410	
	0:01:20	680	0:12:00	410	
	0:01:30	650	0:14:00	400	
	0:01:45	620	0:16:00	395	
	0:02:00	590	0:18:00	390	
	0:02:15	570	0:25:00	385	
	0:02:30	550	0:35:00	380	
	0:03:00	520	0:45:00	370	
	0:03:30	500	1:00:00	370	
	0:04:00	490	2:00:00	360	
	0:04:30	480	7:00:00	340	
	0:05:00	470	24:00:00	340	
	0:05:30	460			

7/14/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-27 S3-4-HC-25-2-OF 8.56 % solids 505ppm Developmental E 126.2ppm AE1115	0:00:00	2151.5	0:18:00	1290	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with a few floaties on top, turned yellow overnight. Slightly chunky floc. Looks pretty good.
	0:01:30	2000	0:19:00	1280	
	0:02:00	1940	0:20:00	1270	
	0:03:00	1840	0:21:00	1260	
	0:04:00	1760	0:23:00	1240	
	0:05:00	1680	0:25:00	1230	
	0:06:00	1620	0:32:00	1190	
	0:07:00	1580	0:37:00	1170	
	0:08:00	1520	0:42:00	1150	
	0:09:00	1480	0:47:00	1140	
	0:10:00	1440	0:53:00	1120	
	0:11:00	1420	1:00:00	1110	
	0:12:00	1390	1:15:00	1100	
	0:13:00	1370	1:30:00	1090	
	0:14:00	1350	2:00:00	1070	
	0:15:00	1330	4:00:00	1050	
	0:16:00	1320	7:00:00	1040	
	0:17:00	1300	24:00:00	1010	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-28 S3-4-HC-25-2-OF 8.56 % solids 505ppm Developmental E 126.2ppm AE1115	0:00:00	2151.5	0:18:00	1200	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with a few floaties on top, turned yellow overnight. Slightly chunky floc. Looks pretty good.
	0:01:30	1960	0:19:00	1195	
	0:02:00	1850	0:20:00	1190	
	0:03:00	1660	0:21:00	1185	
	0:04:00	1540	0:23:00	1175	
	0:05:00	1460	0:25:00	1165	
	0:06:00	1410	0:32:00	1150	
	0:07:00	1370	0:37:00	1140	
	0:08:00	1340	0:42:00	1130	
	0:09:00	1300	0:47:00	1125	
	0:10:00	1280	0:53:00	1120	
	0:11:00	1270	1:00:00	1120	
	0:12:00	1260	1:15:00	1110	
	0:13:00	1240	1:30:00	1100	
	0:14:00	1230	2:00:00	1100	
	0:15:00	1220	4:00:00	1080	
	0:16:00	1210	7:00:00	1060	
	0:17:00	1205	24:00:00	1040	

7/18/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-29 S3-4-HC-25-2-OF 2.51 % solids 91ppm Developmental E 27.8ppm AE1115	0:00:00	2029.3	0:05:00	490	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with a few floaties on top, turned yellow overnight. Very chunky floc. Looks very good.
	0:00:10	1700	0:05:30	480	
	0:00:20	1340	0:06:00	480	
	0:00:30	1020	0:07:00	470	
	0:00:40	860	0:08:00	460	
	0:00:50	790	0:09:00	460	
	0:01:00	720	0:10:00	450	
	0:01:10	680	0:12:00	440	
	0:01:20	660	0:15:00	440	
	0:01:30	640	0:20:00	430	
	0:01:45	610	0:25:00	420	
	0:02:00	580	0:30:00	420	
	0:02:30	560	0:40:00	410	
	0:03:00	530	1:00:00	410	
	0:03:30	520	2:00:00	400	
	0:04:00	510	7:00:00	390	
	0:04:30	500	24:00:00	375	

7/18/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-30 S3-4-HC-25-2-OF 2.51 % solids 91ppm Developmental E 27.8ppm AE1115	0:00:00	2029.3	0:05:00	480	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with a few floaties on top, turned yellow overnight. Very chunky floc. Looks very good.
	0:00:10	1620	0:05:30	480	
	0:00:20	1220	0:06:00	470	
	0:00:30	920	0:07:00	460	
	0:00:40	800	0:08:00	460	
	0:00:50	720	0:09:00	450	
	0:01:00	680	0:10:00	450	
	0:01:10	640	0:12:00	450	
	0:01:20	610	0:15:00	440	
	0:01:30	600	0:20:00	430	
	0:01:45	580	0:25:00	430	
	0:02:00	560	0:30:00	425	
	0:02:30	530	0:40:00	420	
	0:03:00	520	1:00:00	410	
	0:03:30	510	2:00:00	400	
	0:04:00	500	7:00:00	390	
	0:04:30	490	24:00:00	380	
Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-31 S3-4-HC-25-2-OF 2.51 % solids 91ppm Developmental E 27.8ppm AE1115	0:00:00	2029.3	0:05:00	480	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear with a few floaties on top, turned yellow overnight. Very chunky floc. Looks very good.
	0:00:10	1620	0:05:30	480	
	0:00:20	1160	0:06:00	470	
	0:00:30	900	0:07:00	465	
	0:00:40	780	0:08:00	460	
	0:00:50	720	0:09:00	455	
	0:01:00	660	0:10:00	450	
	0:01:10	640	0:12:00	445	
	0:01:20	620	0:15:00	440	
	0:01:30	600	0:20:00	430	
	0:01:45	580	0:25:00	430	
	0:02:00	560	0:30:00	425	
	0:02:30	540	0:40:00	420	
	0:03:00	520	1:00:00	420	
	0:03:30	510	2:00:00	400	
	0:04:00	500	7:00:00	390	
	0:04:30	490	24:00:00	380	

total solids used = 2.86 kg
 total solids remaining = 10.02 kg

Test No.	Sediment sample name	% wt. solids	Slurry s.g.	kg solids per 2 L	Coag. type	Coag dose		Floc type	Floc dose	
						lbs/dry ton	mg/L		lbs/dry ton	mg/L
ST-01	S2-2-07 <#200	3.24			Dev E		600	N/A		
ST-02	S2-2-07 <#200	3.24			Dev E		600	N/A		
ST-03	S2-2-07 <#200	1.1			Dev E		200	N/A		
ST-04	S2-2-07 <#200	1.1			Dev E		200	N/A		
ST-05	S2-2-HC-15-2-OF SS	3.16			Dev E		600	N/A		
ST-06	S2-2-08 < #200	3.03			Dev E		150	N/A		
ST-07	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	1.5	15.2
ST-08	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	1.5	46.7
ST-09	S3-4-HC-25-2-OF SS	12	1.08	0.26	Dev E	6.0	389	AE1115	1.5	97.2
ST-10	S3-4-HC-25-2-OF SS	18	1.12	0.40	Dev E	6.0	607	AE1115	1.5	151.8
ST-11	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-12	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-13	S3-4-HC-25-2-OF SS	4	1.03	0.08	Dev E	6.0	123	AE1115	1.5	30.8
ST-14	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	6.0	252	AE1115	1.5	63.1
ST-15	S3-4-HC-25-2-OF SS	4	1.03	0.08	Dev E	6.0	123	AE1115	3.0	61.5
ST-16	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	6.0	252	AE1115	3.0	126.2
ST-17	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	12.0	121	AE1115	1.5	15.2
ST-18	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	12.0	374	AE1115	1.5	46.7
ST-19	S3-4-HC-25-2-OF SS	4	1.03	0.08	Dev E	12	246	AE1115	1.5	30.8
ST-20	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	12.0	505	AE1115	1.5	63.1
ST-21	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	12.0	121	AE1115	3.0	30.4
ST-22	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	12.0	374	AE1115	3.0	93.4
ST-23	S3-4-HC-25-2-OF SS	4	1.03	0.08	Dev E	12.0	246	AE1115	3.0	61.5
ST-24	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	12.0	505	AE1115	3.0	126.2
ST-25	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	1.5	15.2
ST-26	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	1.5	15.2
ST-27	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	12.0	505	AE1115	3.0	126.2
ST-28	S3-4-HC-25-2-OF SS	8	1.05	0.17	Dev E	12.0	505	AE1115	3.0	126.2
ST-29	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	9.0	91	AE1115	2.75	27.8
ST-30	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	9.0	91	AE1115	2.75	27.8
ST-31	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	9.0	91	AE1115	2.75	27.8

GE Hudson River

Final Feed % Solids Used in 2 L Settling Tests

7/20/2005

Anticipated % Solids	Measured % Solids (Initial-1)	Measured % Solids (Initial-2)	Measured % Solids (Final-1)	Measured % Solids (Final-2)	Measured % Solids (Final-3)	Average of all % Solids
2	1.63	3.38	2.07	2.20	2.28	2.31
4	4.00	4.01	4.37	4.37	4.34	4.22
6	6.30	6.10	6.43	6.65	6.66	6.43
8	8.62	8.49	8.16	---	---	8.42

GE Hudson River

9/7/2005

Sieve Analysis

Sample I.D. and Initial Dry Weight	Sieve #	Aperture (µm)	Tare Wt. (g)	Dry Weight (g)	Weight Retained (g)	% Weight Retained	% Weight Passed
S4-10-HC OF 951.3 g wet/ 42.33 g dry (4.45% Solids)	200	75	277.3	285.1	7.80	17.80	82.20
	< 200	<75	--	--	36.0	82.20	---

<#200 Data	
Grams Wash Water	% Solids
2591.8	1.39

% Recovery	103.5
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Sample I.D. and Initial Dry Weight	Sieve #	Aperture (µm)	Tare Wt. (g)	Dry Weight (g)	Weight Retained (g)	% Weight Retained	% Weight Passed
S4-15-HC OF 1016.5 g wet/ 63.43 g dry (6.24% Solids)	200	75	340.2	343.8	3.6	5.53	94.47
	< 200	<75	--	--	61.5	94.47	---

<#200 Data	
Grams Wash Water	% Solids
2795.5	2.20

% Recovery	102.6
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GE Hudson River

Slurry Settling Tests - 2 L Graduated Cylinder

2000 mL graduated cylinder tests

9/8/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-32 A S3-4-HC-25-2-OF SS (2% init. solids) 2.15% solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	505	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 420 mL.
	0:00:10	1540	0:03:00	500	
	0:00:20	1000	0:03:30	490	
	0:00:30	780	0:04:00	480	
	0:00:40	700	0:04:30	470	
	0:00:50	650	0:05:00	465	
	0:01:00	620	0:06:00	460	
	0:01:10	590	0:07:00	455	
	0:01:20	580	0:08:00	450	
	0:01:30	560	0:10:00	445	
	0:01:40	550	0:15:00	435	
	0:01:50	540	0:20:00	430	
	0:02:00	530	0:30:00	420	
	0:02:10	520	0:40:00	415	
	0:02:20	515	1:00:00	410	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-32 B S3-4-HC-25-2-OF SS (2% init. solids) 2.15% solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	500	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 420 mL.
	0:00:10	1440	0:03:00	490	
	0:00:20	880	0:03:30	480	
	0:00:30	720	0:04:00	470	
	0:00:40	660	0:04:30	465	
	0:00:50	620	0:05:00	460	
	0:01:00	590	0:06:00	455	
	0:01:10	570	0:07:00	450	
	0:01:20	560	0:08:00	445	
	0:01:30	540	0:10:00	440	
	0:01:40	530	0:15:00	430	
	0:01:50	520	0:20:00	425	
	0:02:00	515	0:30:00	420	
	0:02:10	510	0:40:00	415	
	0:02:20	505	1:00:00	410	

9/8/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-33 A S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1030	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 910 mL.
0:00:30	1890	0:10:00	1020		
0:01:00	1710	0:12:00	1000		
0:01:30	1550	0:14:00	980		
0:02:00	1430	0:16:00	970		
0:02:30	1340	0:18:00	960		
0:03:00	1280	0:20:00	950		
0:03:30	1230	0:22:00	945		
0:04:00	1190	0:24:00	940		
0:04:30	1160	0:26:00	935		
0:05:00	1140	0:28:00	930		
0:05:30	1120	0:30:00	925		
0:06:00	1100	0:35:00	920		
0:06:30	1080	0:40:00	915		
0:07:00	1070	0:45:00	910		
0:07:30	1060	0:50:00	910		
0:08:00	1050	1:00:00	905		
0:08:30	1040				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-33 B S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1020	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 910 mL.
0:00:30	1870	0:10:00	1010		
0:01:00	1680	0:12:00	990		
0:01:30	1520	0:14:00	970		
0:02:00	1400	0:16:00	960		
0:02:30	1320	0:18:00	950		
0:03:00	1260	0:20:00	940		
0:03:30	1210	0:22:00	935		
0:04:00	1180	0:24:00	930		
0:04:30	1150	0:26:00	925		
0:05:00	1120	0:28:00	925		
0:05:30	1100	0:30:00	920		
0:06:00	1080	0:35:00	915		
0:06:30	1070	0:40:00	910		
0:07:00	1060	0:45:00	905		
0:07:30	1050	0:50:00	900		
0:08:00	1040	1:00:00	900		
0:08:30	1030				

9/8/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-34 A S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1030	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 900 mL.
0:00:30	1890	0:10:00	1020		
0:01:00	1720	0:12:00	1000		
0:01:30	1560	0:14:00	970		
0:02:00	1430	0:16:00	960		
0:02:30	1340	0:18:00	950		
0:03:00	1280	0:20:00	950		
0:03:30	1230	0:22:00	940		
0:04:00	1195	0:24:00	930		
0:04:30	1160	0:26:00	930		
0:05:00	1140	0:28:00	920		
0:05:30	1120	0:30:00	920		
0:06:00	1100	0:35:00	910		
0:06:30	1080	0:40:00	910		
0:07:00	1070	0:45:00	900		
0:07:30	1060	0:50:00	890		
0:08:00	1050	1:00:00	890		
0:08:30	1040				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-34 B S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1110	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 900 mL.
0:00:30	1980	0:10:00	1090		
0:01:00	1880	0:12:00	1045		
0:01:30	1790	0:14:00	1015		
0:02:00	1680	0:16:00	990		
0:02:30	1600	0:18:00	970		
0:03:00	1500	0:20:00	960		
0:03:30	1440	0:22:00	950		
0:04:00	1390	0:24:00	940		
0:04:30	1340	0:26:00	930		
0:05:00	1300	0:28:00	920		
0:05:30	1260	0:30:00	915		
0:06:00	1240	0:35:00	900		
0:06:30	1200	0:40:00	890		
0:07:00	1180	0:45:00	880		
0:07:30	1165	0:50:00	875		
0:08:00	1150	1:00:00	870		
0:08:30	1130				

9/8/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-35 A S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1130	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 940 mL.
0:00:30	1960	0:10:00	1110		
0:01:00	1830	0:12:00	1080		
0:01:30	1710	0:14:00	1050		
0:02:00	1600	0:16:00	1030		
0:02:30	1510	0:18:00	1020		
0:03:00	1440	0:20:00	1010		
0:03:30	1390	0:22:00	1000		
0:04:00	1340	0:24:00	990		
0:04:30	1300	0:26:00	980		
0:05:00	1270	0:28:00	975		
0:05:30	1240	0:30:00	970		
0:06:00	1220	0:35:00	960		
0:06:30	1205	0:40:00	950		
0:07:00	1185	0:45:00	940		
0:07:30	1170	0:50:00	940		
0:08:00	1150	1:00:00	930		
0:08:30	1140				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-35 B S3-4-HC-25-2-OF SS (6% init. solids) 6.47% solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1080	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 940 mL.
0:00:30	1960	0:10:00	1070		
0:01:00	1800	0:12:00	1050		
0:01:30	1620	0:14:00	1025		
0:02:00	1500	0:16:00	1010		
0:02:30	1420	0:18:00	1000		
0:03:00	1360	0:20:00	990		
0:03:30	1300	0:22:00	985		
0:04:00	1260	0:24:00	980		
0:04:30	1230	0:26:00	980		
0:05:00	1200	0:28:00	970		
0:05:30	1180	0:30:00	965		
0:06:00	1170	0:35:00	960		
0:06:30	1150	0:40:00	950		
0:07:00	1130	0:45:00	950		
0:07:30	1120	0:50:00	940		
0:08:00	1105	1:00:00	930		
0:08:30	1090				

9/8/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-36 S3-4-HC-25-2-OF SS (10% init. solids) 10.39% solids 320 ppm Developmental E 159.8 ppm AE1115	0:00:00	2128	1:15:00	1780	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is slightly cloudy and colorless with a layer of floaties. Fine floc. Looks okay. Decanted supernatant to 1640 mL.
	0:26:00	2000	1:20:00	1760	
	0:30:00	1980	1:25:00	1740	
	0:35:00	1960	1:30:00	1720	
	0:40:00	1930	1:35:00	1700	
	0:45:00	1900	1:40:00	1680	
	0:50:00	1880	1:45:00	1670	
	0:55:00	1860	1:50:00	1660	
	1:00:00	1840	1:55:00	1650	
	1:05:00	1820	2:00:00	1635	
	1:10:00	1800			

9/9/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-37 A S2-2-HC-15-2-OF SS (2% init. solids) 2.07 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	900	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Very chunky floc. Looks very good. Decanted supernatant to 475 mL.
	0:00:10	1910	0:03:00	860	
	0:00:20	1820	0:03:30	810	
	0:00:30	1740	0:04:00	770	
	0:00:40	1580	0:04:30	740	
	0:00:50	1480	0:05:00	710	
	0:01:00	1380	0:06:00	670	
	0:01:10	1300	0:07:00	640	
	0:01:20	1220	0:08:00	620	
	0:01:30	1160	0:10:00	580	
	0:01:40	1090	0:15:00	540	
	0:01:50	1060	0:20:00	510	
	0:02:00	1020	0:30:00	480	
	0:02:10	980	0:40:00	470	
	0:02:20	940	1:00:00	465	

9/9/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-37 B S2-2-HC-15-2-OF SS (2% init. solids) 2.07 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	1110	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Very chunky floc. Looks very good. Decanted supernatant to 475 mL.
	0:00:10	1940	0:03:00	1030	
	0:00:20	1880	0:03:30	970	
	0:00:30	1830	0:04:00	920	
	0:00:40	1760	0:04:30	870	
	0:00:50	1680	0:05:00	840	
	0:01:00	1610	0:06:00	780	
	0:01:10	1530	0:07:00	740	
	0:01:20	1460	0:08:00	700	
	0:01:30	1390	0:10:00	650	
	0:01:40	1340	0:15:00	580	
	0:01:50	1280	0:20:00	545	
	0:02:00	1230	0:30:00	510	
	0:02:10	1180	0:40:00	490	
	0:02:20	1150	1:00:00	470	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-38 A S2-2-HC-15-2-OF SS (6% init. solids) 6.06 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1290	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 1060 mL.
	0:00:30	1990	0:10:00	1270	
	0:01:00	1910	0:12:00	1230	
	0:01:30	1820	0:14:00	1200	
	0:02:00	1740	0:16:00	1180	
	0:02:30	1670	0:18:00	1170	
	0:03:00	1610	0:20:00	1150	
	0:03:30	1560	0:22:00	1140	
	0:04:00	1510	0:24:00	1130	
	0:04:30	1470	0:26:00	1120	
	0:05:00	1440	0:28:00	1110	
	0:05:30	1410	0:30:00	1105	
	0:06:00	1390	0:35:00	1100	
	0:06:30	1370	0:40:00	1080	
	0:07:00	1350	0:45:00	1075	
	0:07:30	1330	0:50:00	1070	
	0:08:00	1320	1:00:00	1060	
	0:08:30	1300			

9/9/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-38 B S2-2-HC-15-2-OF SS (6% init. solids) 6.06 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1330	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless with a few floaties. Chunky floc. Looks good. Decanted supernatant to 1060 mL.
0:00:30	2020	0:10:00	1310		
0:01:00	1950	0:12:00	1260		
0:01:30	1880	0:14:00	1230		
0:02:00	1810	0:16:00	1200		
0:02:30	1750	0:18:00	1180		
0:03:00	1690	0:20:00	1160		
0:03:30	1630	0:22:00	1140		
0:04:00	1590	0:24:00	1130		
0:04:30	1550	0:26:00	1120		
0:05:00	1520	0:28:00	1110		
0:05:30	1490	0:30:00	1105		
0:06:00	1450	0:35:00	1090		
0:06:30	1430	0:40:00	1075		
0:07:00	1400	0:45:00	1065		
0:07:30	1390	0:50:00	1060		
0:08:00	1370	1:00:00	1050		
0:08:30	1350				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-39 S2-2-HC-15-2-OF SS (10% init. solids) 10.69 % solids 320 ppm Developmental E 159.8 ppm AE1115	0:00:00	2128			Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is slightly cloudy and colorless with a layer of floaties. Fine floc. Looks okay. Decanted supernatant to 2050 mL. Supernatant TSS: 7.14.
1:00:00	2070				
1:30:00	2060				
2:00:00	2050				

9/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-40 A S2-2-07 < #200 (6% init. solids) 6.25 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1030	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 900 mL.
0:00:30	1860	0:10:00	1020		
0:01:00	1640	0:12:00	1000		
0:01:30	1480	0:14:00	980		
0:02:00	1380	0:16:00	970		
0:02:30	1300	0:18:00	960		
0:03:00	1250	0:20:00	940		
0:03:30	1210	0:22:00	930		
0:04:00	1180	0:24:00	930		
0:04:30	1150	0:26:00	920		
0:05:00	1130	0:28:00	920		
0:05:30	1110	0:30:00	910		
0:06:00	1100	0:35:00	910		
0:06:30	1080	0:40:00	900		
0:07:00	1070	0:45:00	895		
0:07:30	1060	0:50:00	890		
0:08:00	1050	1:00:00	890		
0:08:30	1040				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-40 B S2-2-07 < #200 (6% init. solids) 6.25 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1050	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 900 mL.
0:00:30	1860	0:10:00	1030		
0:01:00	1660	0:12:00	1020		
0:01:30	1500	0:14:00	1000		
0:02:00	1390	0:16:00	980		
0:02:30	1320	0:18:00	980		
0:03:00	1260	0:20:00	960		
0:03:30	1220	0:22:00	950		
0:04:00	1200	0:24:00	945		
0:04:30	1170	0:26:00	940		
0:05:00	1150	0:28:00	935		
0:05:30	1130	0:30:00	930		
0:06:00	1110	0:35:00	920		
0:06:30	1100	0:40:00	915		
0:07:00	1090	0:45:00	910		
0:07:30	1080	0:50:00	910		
0:08:00	1070	1:00:00	900		
0:08:30	1060				

9/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-41 A S2-2-08 <#400 (6% init. solids) 5.92 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1040	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 910 mL.
0:00:30	1860	0:10:00	1030		
0:01:00	1650	0:12:00	1010		
0:01:30	1480	0:14:00	990		
0:02:00	1380	0:16:00	980		
0:02:30	1300	0:18:00	970		
0:03:00	1250	0:20:00	960		
0:03:30	1210	0:22:00	960		
0:04:00	1180	0:24:00	955		
0:04:30	1160	0:26:00	945		
0:05:00	1140	0:28:00	940		
0:05:30	1120	0:30:00	940		
0:06:00	1100	0:35:00	930		
0:06:30	1090	0:40:00	920		
0:07:00	1080	0:45:00	910		
0:07:30	1070	0:50:00	910		
0:08:00	1060	1:00:00	905		
0:08:30	1050				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-41 B S2-2-08 <#400 (6% init. solids) 5.92 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1055	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 930 mL.
0:00:30	1860	0:10:00	1045		
0:01:00	1640	0:12:00	1030		
0:01:30	1480	0:14:00	1010		
0:02:00	1380	0:16:00	1000		
0:02:30	1300	0:18:00	990		
0:03:00	1250	0:20:00	980		
0:03:30	1220	0:22:00	975		
0:04:00	1180	0:24:00	970		
0:04:30	1160	0:26:00	970		
0:05:00	1140	0:28:00	965		
0:05:30	1130	0:30:00	960		
0:06:00	1120	0:35:00	945		
0:06:30	1100	0:40:00	940		
0:07:00	1090	0:45:00	940		
0:07:30	1080	0:50:00	930		
0:08:00	1070	1:00:00	920		
0:08:30	1060				

9/12/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-42 A S4-HC-10-OF (2% init. solids) 2.02 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	545	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 430 mL.
	0:00:10	1640	0:03:00	535	
	0:00:20	1180	0:03:30	520	
	0:00:30	900	0:04:00	510	
	0:00:40	800	0:04:30	505	
	0:00:50	740	0:05:00	500	
	0:01:00	700	0:06:00	480	
	0:01:10	660	0:07:00	480	
	0:01:20	640	0:08:00	470	
	0:01:30	620	0:10:00	460	
	0:01:40	585	0:15:00	450	
	0:01:50	580	0:20:00	440	
	0:02:00	570	0:30:00	435	
	0:02:10	560	0:40:00	430	
	0:02:20	550	1:00:00	425	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-42 B S4-HC-10-OF (2% init. solids) 2.02 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	540	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 430 mL.
	0:00:10	1600	0:03:00	520	
	0:00:20	1140	0:03:30	515	
	0:00:30	880	0:04:00	505	
	0:00:40	780	0:04:30	495	
	0:00:50	720	0:05:00	485	
	0:01:00	680	0:06:00	480	
	0:01:10	640	0:07:00	470	
	0:01:20	630	0:08:00	465	
	0:01:30	610	0:10:00	460	
	0:01:40	590	0:15:00	445	
	0:01:50	580	0:20:00	435	
	0:02:00	570	0:30:00	430	
	0:02:10	560	0:40:00	425	
	0:02:20	550	1:00:00	425	

9/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-45 A S4-HC-15-OF (2% init. solids) 2.13 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	550	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 450 mL.
	0:00:10	1560	0:03:00	540	
	0:00:20	1020	0:03:30	530	
	0:00:30	820	0:04:00	520	
	0:00:40	740	0:04:30	510	
	0:00:50	690	0:05:00	510	
	0:01:00	660	0:06:00	500	
	0:01:10	640	0:07:00	490	
	0:01:20	620	0:08:00	485	
	0:01:30	600	0:10:00	480	
	0:01:40	590	0:15:00	465	
	0:01:50	580	0:20:00	460	
	0:02:00	570	0:30:00	455	
	0:02:10	560	0:40:00	450	
	0:02:20	555	1:00:00	445	

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-45 B S4-HC-15-OF (2% init. solids) 2.13 % solids 61 ppm Developmental E 30.4 ppm AE1115	0:00:00	2024	0:02:40	550	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is clear and colorless. Very chunky floc. Looks very good. Decanted supernatant to 450 mL.
	0:00:10	1540	0:03:00	540	
	0:00:20	1040	0:03:30	530	
	0:00:30	820	0:04:00	520	
	0:00:40	740	0:04:30	510	
	0:00:50	700	0:05:00	505	
	0:01:00	660	0:06:00	500	
	0:01:10	640	0:07:00	490	
	0:01:20	620	0:08:00	485	
	0:01:30	610	0:10:00	480	
	0:01:40	590	0:15:00	465	
	0:01:50	580	0:20:00	460	
	0:02:00	570	0:30:00	455	
	0:02:10	565	0:40:00	450	
	0:02:20	560	1:00:00	445	

9/13/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-46 A S4-HC-15-OF (6% init. solids) 6.24 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1130	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 990 mL.
0:00:30	1900	0:10:00	1115		
0:01:00	1710	0:12:00	1090		
0:01:30	1560	0:14:00	1070		
0:02:00	1480	0:16:00	1060		
0:02:30	1400	0:18:00	1050		
0:03:00	1350	0:20:00	1040		
0:03:30	1300	0:22:00	1035		
0:04:00	1280	0:24:00	1030		
0:04:30	1250	0:26:00	1025		
0:05:00	1230	0:28:00	1015		
0:05:30	1210	0:30:00	1010		
0:06:00	1190	0:35:00	1005		
0:06:30	1180	0:40:00	1000		
0:07:00	1170	0:45:00	995		
0:07:30	1160	0:50:00	990		
0:08:00	1150	1:00:00	985		
0:08:30	1140				

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-46 B S4-HC-15-OF (6% init. solids) 6.24 % solids 187 ppm Developmental E 93.4 ppm AE1115	0:00:00	2075	0:09:00	1145	Mixed slurry and Developmental E with 9 one second strokes followed by the addition of AE1115 also mixed with 9 one second strokes. Supernatant is very slightly cloudy and colorless. Chunky floc. Looks good. Decanted supernatant to 990 mL.
0:00:30	1930	0:10:00	1130		
0:01:00	1770	0:12:00	1100		
0:01:30	1620	0:14:00	1080		
0:02:00	1520	0:16:00	1070		
0:02:30	1440	0:18:00	1055		
0:03:00	1390	0:20:00	1045		
0:03:30	1340	0:22:00	1035		
0:04:00	1310	0:24:00	1030		
0:04:30	1280	0:26:00	1025		
0:05:00	1260	0:28:00	1020		
0:05:30	1230	0:30:00	1015		
0:06:00	1215	0:35:00	1005		
0:06:30	1205	0:40:00	1000		
0:07:00	1190	0:45:00	995		
0:07:30	1175	0:50:00	990		
0:08:00	1165	1:00:00	985		
0:08:30	1150				

9/23/2005

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-48 A S3-4-HC-25-2-OF SS (6% init. solids) 6.23 % solids 93.4 ppm AE1115	0:00:00	2037	0:09:00	1160	Mixed slurry and AE1115 with 9 one second strokes. Supernatant is clear and slightly yellow with a few floaties. Chunky floc. Looks good. Decanted supernatant to 780 mL.
	0:00:30	1980	0:10:00	1120	
	0:01:00	1930	0:12:00	1060	
	0:01:30	1870	0:14:00	1010	
	0:02:00	1820	0:16:00	980	
	0:02:30	1760	0:18:00	950	
	0:03:00	1700	0:20:00	920	
	0:03:30	1630	0:22:00	900	
	0:04:00	1580	0:24:00	880	
	0:04:30	1520	0:26:00	870	
	0:05:00	1460	0:28:00	860	
	0:05:30	1410	0:30:00	850	
	0:06:00	1360	0:35:00	830	
	0:06:30	1320	0:40:00	810	
	0:07:00	1280	0:45:00	800	
	0:07:30	1250	0:50:00	790	
	0:08:00	1220	1:00:00	770	
	0:08:30	1190			

Sample Name	Time	Mudline Level (mL)	Time	Mudline Level (mL)	Observations
ST-48 B S3-4-HC-25-2-OF SS (6% init. solids) 6.23 % solids 93.4 ppm AE1115	0:00:00	2037	0:09:00	1060	Mixed slurry and AE1115 with 9 one second strokes. Supernatant is clear and slightly yellow with a few floaties. Chunky floc. Looks good. Decanted supernatant to 780 mL.
	0:00:30	1960	0:10:00	1040	
	0:01:00	1890	0:12:00	990	
	0:01:30	1820	0:14:00	960	
	0:02:00	1730	0:16:00	930	
	0:02:30	1650	0:18:00	910	
	0:03:00	1560	0:20:00	890	
	0:03:30	1480	0:22:00	870	
	0:04:00	1410	0:24:00	860	
	0:04:30	1340	0:26:00	850	
	0:05:00	1290	0:28:00	840	
	0:05:30	1250	0:30:00	830	
	0:06:00	1210	0:35:00	820	
	0:06:30	1180	0:40:00	810	
	0:07:00	1150	0:45:00	800	
	0:07:30	1130	0:50:00	790	
	0:08:00	1110	1:00:00	770	
	0:08:30	1080			

GE Hudson River

Slurry Settling Tests - 2 L Graduated Cylinder

WST Test #	BB Test #	Sediment Sample Name	% Wt. Solids	Slurry S.G.	kg Solids per 2L	Coag. type	Coagulant dose		Floc type	Flocculant dose	
							lbs/dry ton	mg/L		lbs/dry ton	mg/L
ST-32 A	1	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-32 B	1	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-32 C*	1	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-32 D*	1	S3-4-HC-25-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-33 A	2	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-33 B	2	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-34 A	3	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-34 B	3	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-35 A	4	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-35 B	4	S3-4-HC-25-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-36	5	S3-4-HC-25-2-OF SS	10	1.07	0.21	Dev E	6.0	320	AE1115	3.0	159.8
ST-37 A	6	S2-2-HC-15-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-37 B	6	S2-2-HC-15-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-37 C*	6	S2-2-HC-15-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-37 D*	6	S2-2-HC-15-2-OF SS	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-38 A	7	S2-2-HC-15-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-38 B	7	S2-2-HC-15-2-OF SS	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-39	8	S2-2-HC-15-2-OF SS	10	1.07	0.21	Dev E	6.0	320	AE1115	3.0	159.8

WST Test #	BB Test #	Sediment Sample Name	% Wt. Solids	Slurry S.G.	kg Solids per 2L	Coag. type	Coagulant dose		Floc type	Flocculant dose	
							lbs/dry ton	mg/L		lbs/dry ton	mg/L
ST-40 A	9	S2-2-07 < #200	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-40 B	9	S2-2-07 < #200	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-41 A	10	S2-2-08 < #400	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-41 B	10	S2-2-08 < #400	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-42 A	11	S4-HC-10-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-42 B	11	S4-HC-10-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-42 C*	11	S4-HC-10-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-42 D*	11	S4-HC-10-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-43 A	12	S4-HC-10-OF	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-43 B	12	S4-HC-10-OF	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-44	13	S4-HC-10-OF	10	1.07	0.21	Dev E	6.0	320	AE1115	3.0	159.8
ST-45 A	14	S4-HC-15-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-45 B	14	S4-HC-15-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-45 C*	14	S4-HC-15-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-45 D*	14	S4-HC-15-OF	2	1.01	0.04	Dev E	6.0	61	AE1115	3.0	30.4
ST-46 A	15	S4-HC-15-OF	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-46 B	15	S4-HC-15-OF	6	1.04	0.12	Dev E	6.0	187	AE1115	3.0	93.4
ST-47	16	S4-HC-15-OF	10	1.07	0.21	Dev E	6.0	320	AE1115	3.0	159.8
ST-48 A	17	S3-4-HC-25-2-OF SS	6	1.04	0.12	--	--	--	AE1115	3.0	93.4
ST-48 B	17	S3-4-HC-25-2-OF SS	6	1.04	0.12	--	--	--	AE1115	3.0	93.4

* No Settling Data Taken

Cancelled Tests

GE Hudson River

Final Feed % Solids Used in 2 L Settling Tests

8/10/2005

Sample I.D.	Anticipated % Solids	Measured % Solids (Initial 1)	Measured % Solids (Initial 2)	Measured % Solids (Final 1)	Measured % Solids (Final 2)	Average Measured % Solids
S3-4-HC-25-2-OF SS (1of2)	2	2.16	2.14	3.08	2.64	2.51
S3-4-HC-25-2-OF SS (2of2)	2	2.19	2.20	--	--	2.20
S3-4-HC-25-2-OF SS (1of2)	6	6.49	6.44	6.94	6.87	6.69
S3-4-HC-25-2-OF SS (2of2)	6	6.30	6.31	6.72	6.76	6.52
S3-4-HC-25-2-OF SS (for ST-48)	6	6.20	6.26	--	--	6.23
S3-4-HC-25-2-OF SS	10	10.39	10.39	--	--	10.39
S2-2-HC-15-2-OF SS	2	2.00	2.07	--	--	2.04
S2-2-HC-15-2-OF SS	6	6.11	6.01	--	--	6.06
S2-2-HC-15-2-OF SS	10	10.64	10.73	--	--	10.69
S2-2-07 < #200	6	6.20	6.29	--	--	6.25
S2-2-08 < #400	6	5.89	5.94	--	--	5.92
S4-HC-10-OF	2	1.99	2.05	--	--	2.02
S4-HC-10-OF	6	NA	NA	--	--	0.00
S4-HC-10-OF	10	NA	NA	--	--	0.00
S4-HC-15-OF	2	2.09	2.16	--	--	2.13
S4-HC-15-OF	6	6.32	6.16	--	--	6.24
S4-HC-15-OF	10	NA	NA	--	--	0.00

NA = Not Analyzed; Cancelled Tests

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-32

Slurry ID: ST-32 SS Polymer ID: Dev "E"
% Feed Solids (w/w): 10.39 Dosage: 736 ppm (73.6 mL of 1%)
Sample Volume: 1L
Press Time: 60 min
Date/Time: 9/8/05 1115 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	66	SI. ISD (10 sec, 8 mL), Clear/Colorless
4	50	41	Clear/Colorless
6	100	37	Clear/Colorless
60	100	204	Clear/Colorless, TSS: 3 ppm

Filter Cake Quality: Exc, firm throughout

Release from Cloth: Exc, No sticking/blinding

% Solids (w/w): 56.97

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-33

Slurry ID: ST-33 SS Polymer ID: None
% Feed Solids (w/w): 15.36 Dosage: None
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/8/05 1415 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	48	ISD (10 sec, 9 mL), Clear/Colorless
4	50	28	Clear/Colorless
6	100	26	Clear/Colorless
60	100	135	Clear/sl. Yellow, TSS: 5 ppm

Filter Cake Quality: Exc, v. sl. Soft top

Release from Cloth: Exc, No sticking/blinding

% Solids (w/w): 57.69

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-34

Slurry ID: ST-34 SS Polymer ID: Dev "E"
% Feed Solids (w/w): 14.71 Dosage: 826 ppm (82.6 mL of 1%)
Sample Volume: 1L
Press Time: 60 min
Date/Time: 9/8/05 1530 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	56	Sl. ISD (10 sec, 11 mL), Clear/Colorless
4	50	35	Clear/Colorless
6	100	31	Clear/Colorless
60	100	143	V. Sl. Cloudy, Mod. Yellow, TSS: 13 ppm

Filter Cake Quality: Exc, firm throughout

Release from Cloth: Exc, no sticking/blinding

% Solids (w/w): 57.13

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-35

Slurry ID: ST-35 Polymer ID: Dev "E"
% Feed Solids (w/w): 13.68 Dosage: 1653 ppm (165.3 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/9/05 0930 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	71	ISD (5 sec, 10 mL), Clear/Colorless
4	50	39	Clear/Colorless
6	100	32	Clear/Colorless
60	100	145	Sl. Cloudy, Mod. Yellow, TSS: 19 ppm

Filter Cake Quality: Exc., firm throughout

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 57.93

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-36

Slurry ID: ST-36

Polymer ID: Dev "E"

% Feed Solids (w/w): 14.13

Dosage: 981 ppm (98.1 mL of 1%)

Sample Volume: 1L

Press Time: 60 min

Date/Time: 9/9/05 0945

Max. Pressure: 100 psi

Tech: JL

Filter Cloth: Crosible 85x5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	49	No Apparent ISD, Clear/Colorless
4	50	28	Clear/Colorless
6	100	25	Clear/Colorless
60	100	170	Clear, Sl. Yellow, TSS: 13 ppm

Filter Cake Quality: Exc., Firm throughout

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 57.54

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-51

Slurry ID: S3-4-HC-25-2-OF SS Polymer ID: Dev "E"
% Feed Solids (w/w): 2.15 Dosage: 162 ppm (32.4 mL of 1%)
Sample Volume: 2L Press Time: 60 min
Date/Time: 9/8/05 1030 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	94	ISD, Clear/Colorless
4	50	61	Clear/Colorless
6	100	48	Clear/Colorless
60	100	396	Clear/V. Sl. Yellow, TSS: 3 ppm

Filter Cake Quality: Poor, wet center

Release from Cloth: Very good, no sticking/blinding

% Solids (w/w): 37.52

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-52

Slurry ID: S3-4-HC-25-2 OF SS Polymer ID: Dev "E"
% Feed Solids (w/w): 6.52 Dosage: 498 ppm (49.8 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/9/05 1415 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	67	No Apparent ISD, Clear/Colorless
4	50	38	Clear/Colorless
6	100	34	Clear/Colorless
60	100	313	Clear, V. Sl. Yellow, TSS: 9 ppm

Filter Cake Quality: Fair, Soft center, moist top

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 52.86

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-53

Slurry ID: S3-4-HC-25-2 OF SS Polymer ID: Dev "E"
% Feed Solids (w/w): 10.39 Dosage: 852 ppm (85.2 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/15/05 0900 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	46	No apparent ISD, Clear/Colorless
4	50	30	Clear/ Sl. Yellow
6	100	27	Clear/ Sl. Yellow
60	100	216	Sl. Cloudy/Mod. Yellow, TSS: 17 ppm

Filter Cake Quality: Good, soft top

Release from Cloth: Exc., no sticking/blinding

% Solids (w/w): 56.48

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-37

Slurry ID: ST-37 Polymer ID: Dev "E"
% Feed Solids (w/w): 8.42 Dosage: 736 ppm (73.6 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/9/05 1345 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	60	ISD (10 sec, 11 mL), Clear/Colorless
4	50	38	Clear/Colorless
6	100	33	Clear/Colorless
60	100	267	Clear, Sl. Yellow, TSS: 8 ppm

Filter Cake Quality: Very Good, soft top

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 50.20

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-38

Slurry ID:	ST-38	Polymer ID:	Dev "E"
% Feed Solids (w/w):	11.28	Dosage:	826 ppm (82.6 mL of 1%)
Sample Volume:	1L	Press Time:	60 min
Date/Time:	9/12/05 1515	Max. Pressure:	100 psi
Tech:	JL	Filter Cloth:	Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	56	No apparent ISD, Clear/Colorless
4	50	35	Clear/Colorless
6	100	32	Clear/Colorless
60	100	182	Sl. Cloudy/Mod. Yellow, TSS: 27 ppm

Filter Cake Quality: Exc., firm throughout

Release from Cloth: Exc., no sticking/blinding

% Solids (w/w): 52.14

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-39

Slurry ID:	ST-39	Polymer ID:	Dev "E"
% Feed Solids (w/w):	10.81	Dosage:	981 ppm (98.1 mL of 1%)
Sample Volume:	1L	Press Time:	60 min
Date/Time:	9/12/05 1530	Max. Pressure:	100 psi
Tech:	JL	Filter Cloth:	Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	49	No apparent ISD, Clear/Colorless
4	50	30	Clear/Colorless
6	100	27	Clear/Colorless
60	100	228	Clear/Si. Yellow, TSS: 30 ppm

Filter Cake Quality: Good, soft top

Release from Cloth: Good, no sticking/sl. Blinding

% Solids (w/w): 50.51

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-40

Slurry ID: ST-40 Polymer ID: Dev "E"
% Feed Solids (w/w): 13.64 Dosage: 826 ppm (82.6 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/13/05 0930 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	64	No Apparent ISD, Clear/Colorless
4	50	38	Clear/Colorless
6	100	30	Clear/Colorless
60	100	152	Clear/Si. Yellow, TSS: 16 ppm

Filter Cake Quality: Exc., firm throughout

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 57.89

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-41

Slurry ID: ST-41 Polymer ID: Dev "E"
% Feed Solids (w/w): 9.39 Dosage: 826 ppm (82.6 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/13/05 0945 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	66	ISD (10 sec, 15 mL), Clear/Colorless
4	50	36	Clear/Colorless
6	100	31	Clear/Colorless
60	100	214	Clear/Colorless, TSS: 13 ppm

Filter Cake Quality: Very good, slightly soft top

Release from Cloth: Exc., no sticking/blinding

% Solids (w/w): 50.06

Additional Comments: New cloths.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-42

Slurry ID: ST-42 Polymer ID: Dev "E"
% Feed Solids (w/w): 9.99 Dosage: 736 ppm (73.6 mL of 1%)
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/13/05 1345 Max. Pressure: 100 psi
Tech: JL Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	89	ISD (10 sec, 15 mL), Clear/Colorless
4	50	51	Clear/Very Sl. Yellow
6	100	41	Clear/Very Sl. Yellow
60	100	181	Clear, Sl. Yellow, TSS: 1 ppm

Filter Cake Quality: Exc., firm throughout

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 57.82

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-45

Slurry ID:	ST-45	Polymer ID:	Dev "E"
% Feed Solids (w/w):	9.65	Dosage:	736 ppm (73.6 mL of 1%)
Sample Volume:	1L	Press Time:	60 min
Date/Time:	9/13/05 1400	Max. Pressure:	100 psi
Tech:	JL	Filter Cloth:	Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	90	No Apparent ISD, Clear/Colorless
4	50	43	Clear/Colorless
6	100	37	Clear/Very Sl. Yellow
60	100	267	Clear/Very Sl. Yellow, TSS: 8 ppm

Filter Cake Quality: Good, soft top

Release from Cloth: Very good, no sticking/slight blinding

% Solids (w/w): 53.01

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-46

Slurry ID: ST-46

Polymer ID: Dev "E"

% Feed Solids (w/w): 12.93

Dosage: 826 ppm (82.6 mL of 1%)

Sample Volume: 1L

Press Time: 60 min

Date/Time: 9/15/05 0915

Max Pressure: 100 psi

Tech: [All](#)

Filter Cloth: Crosible 85x5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	43	No apparent ISD, Clear/Colorless
4	50	30	Clear/Si. Yellow
6	100	30	Clear/Si. Yellow
60	100	172	Clear/Si. Yellow, TSS: 5 ppm

Filter Cake Quality: Very Good, Sl. Soft top

Release from Cloth: Exc., No sticking/blinding

% Solids (w/w): 54.31

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-ST-48

Slurry ID: ST-48 SS Polymer ID: None
% Feed Solids (w/w): 16.21 Dosage: None
Sample Volume: 1L Press Time: 60 min
Date/Time: 9/23/05 1045 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	15	ISD (20 sec, 6 mL), Clear / Sl. Yellow
4	50	18	Clear / Sl. Yellow
6	100	20	Clear / Sl. Yellow
60	100	110	Clear / Sl. Yellow TSS: 6 ppm

Filter Cake Quality: Very Good - Firm throughout

Release from Cloth: Very good, no sticking/no blinding

% Solids (w/w): 51.90

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Summary

Test ID	Slurry ID	Feed % Solids	Polymer	Dose (ppm)	Time / Pressure	Cake % Solids	Cake Quality
BFP OF SS 01	S2-2-HC-15-2 OF SS	10.94	Dev "E"	100	60 min / 125 psi	NA	Incomplete
BFP OF SS 02	S2-2-HC-15-2 OF SS	10.94	Dev "E"	300	60 min / 125 psi	35.42	Poor
BFP OF SS 03	S2-2-HC-15-2 OF SS	10.94	Dev "E"	500	60 min / 125 psi	38.42	Poor
BFP OF SS 08	S2-2-HC-15-2 OF SS	10.94	Dev "E"	900	60 min / 125 psi	38.33	Poor
BFP OF SS 11	S2-2-HC-15-2 OF SS	10.94	Dev "E"	1500	60 min / 125 psi	47.47	Good
BFP OF SS 12	S2-2-HC-15-2 OF SS	10.94	Dev "E"	900	120 min / 125 psi	48.14	Good
BFP OF SS 04	S3-4-HC-15-1 OF SS	14.45	Dev "E"	1000	60 min / 125 psi	46.89	OK
BFP OF SS 05	S3-4-HC-15-1 OF SS	14.45	Dev "E"	1400	60 min / 125 psi	52.80	Very good
BFP OF SS 09	S3-4-HC-15-1 OF SS	14.45	Dev "E"	2000	60 min / 125 psi	52.65	Excellent
BFP OF SS 13	S3-4-HC-15-1 OF SS	14.45	Dev "E"	1000	120 min / 125 psi	54.59	Very Good
BFP OF SS 06	S3-4-HC-25-2 OF SS	21.15	Dev "E"	1400	60 min / 125 psi	46.33	Poor
BFP OF SS 07	S3-4-HC-25-2 OF SS	21.15	Dev "E"	1800	60 min / 125 psi	47.66	Poor
BFP OF SS 10	S3-4-HC-25-2 OF SS	21.15	Dev "E"	2500	60 min / 125 psi	51.97	Good
BFP OF SS 14	S3-4-HC-25-2 OF SS	21.15	Dev "E"	1800	120 min / 125 psi	54.39	Fair

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 01

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 1000 mL

Polymer ID: Developmental "E"

Dosage: 100ppm

Date/Time: 04/19/05 1500

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	12	Initial sediment discharge
4	50	10	Cloudy, possibly residual sediment from ISD
6	100	7	Slightly cloudy
60	100	85	Clear, colorless

Filter Cake Quality: Incomplete, cake wall formed but was liquid in the middle.

Release from Cloth: Good, slight blinding.

% Solids (w/w): NA

Additional Comments: Additional press time / polymer may be necessary

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 02

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 100ppm

Date/Time: 4/20/05 0925

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	17	Slight initial sediment discharge, clear/colorless
4	50	14	Clear/colorless
6	100	14	Clear/colorless
60	100	112	Clear slightly yellow

Filter Cake Quality: Poor, cake walls formed, wet mushy center

Release from Cloth: Good, slight blinding

% Solids (w/w): 35.42

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 03

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 500ppm

Date/Time: 4/20/05 1045

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	21	Slight initial sediment discharge, clear/colorless
4	50	16	Clear/colorless
6	100	16	Clear/colorless
60	100	143	Clear slightly yellow

Filter Cake Quality: Poor, soft center, wet top

Release from Cloth: Good

% Solids (w/w): 38.42

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 04

Slurry ID: S3-4-HC-15-1 OF SS

Feed Solids: 14.45

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1000ppm

Date/Time: 4/20/05 1315

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	23	Slight initial sediment discharge, clear/colorless
4	50	16	Clear/colorless
6	100	15	Clear/colorless
60	100	124	Clear slightly yellow

Filter Cake Quality: OK, Soft center/top

Release from Cloth: Good, no blind

% Solids (w/w): 46.89

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 05

Slurry ID: S3-4-HC-15-1 OF SS

Feed Solids: 14.45

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1400ppm

Date/Time: 4/20/05 1325

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	37	No initial sediment discharge, clear/colorless
4	50	21	Clear/colorless
6	100	22	Clear/colorless
60	100	152	Clear slightly yellow

Filter Cake Quality: Very good, slightly soft top

Release from Cloth: Good, no blind

% Solids (w/w): 52.80

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 06

Slurry ID: S3-4-HC-25-2 OF SS

Feed Solids: 21.15

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1400ppm

Date/Time: 4/20/05 1425

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	12	No initial sediment discharge, clear/colorless
4	25	7	Clear slightly yellow
6	100	--	Clear slightly yellow
60	100	73	Clear, yellow

Filter Cake Quality: Poor, wet/mushy center

Release from Cloth: OK, slight blinding

% Solids (w/w): 46.33

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 07

Slurry ID: S3-4-HC-25-2 OF SS

Feed Solids: 21.15

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1800ppm

Date/Time: 4/20/05 1500

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	14	No initial sediment discharge, clear/colorless
4	25	7	Clear/colorless
6	100	10	Clear/colorless
60	100	73	Clear slightly yellow

Filter Cake Quality: Poor, soft center, wet top

Release from Cloth: Good, no blinding

% Solids (w/w): 47.66

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 08

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 1000mL

Polymer ID: Developmental "E"

Dosage: 900ppm

Date/Time: 4/21/05 0905

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	17	No initial sediment discharge, clear slightly yellow
4	50	18	Clear slightly yellow
6	100	13	Clear slightly yellow
60	100	120	Clear slightly yellow

Filter Cake Quality: Poor, soft/mushy center, wet top

Release from Cloth: Good, no blinding

% Solids (w/w): 38.33

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 09

Slurry ID: S3-4-HC-15-1 OF SS

Feed Solids: 14.45

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 2000ppm

Date/Time: 4/21/05 0925

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	42	No initial sediment discharge, clear/colorless
4	50	24	Clear/colorless
6	100	23	Clear/colorless
60	100	144	Slightly cloudy, slightly yellow

Filter Cake Quality: Excellent cake, firm throughout

Release from Cloth: Good, no blinding

% Solids (w/w): 52.65

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 10

Slurry ID: S3-4-HC-25-2 OF SS

Feed Solids: 21.15

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 2500ppm

Date/Time: 4/21/2005 1020

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	20	No initial sediment discharge, clear/colorless
4	50	12	Clear/colorless
6	100	12	Clear/colorless
60	100	89	Slightly cloudy, slightly orange

Filter Cake Quality: Good, slightly soft top

Release from Cloth: Good, no blinding

% Solids (w/w): 51.97

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 11

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1500ppm

Date/Time: 4/21/05 1120

Tech: JL

Press Time: 60 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	37	No initial sediment discharge, clear slightly yellow
4	50	26	Clear slightly yellow
6	100	20	Clear slightly yellow
60	100	200	Clear slightly yellow

Filter Cake Quality: Good, slightly soft top

Release from Cloth: Good, no blinding

% Solids (w/w): 47.47

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 12

Slurry ID: S2-2-HC-15-2 OF SS

Feed Solids: 10.94

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 900 ppm

Date/Time: 4/22/05 1000

Tech: JL

Press Time: 120 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	25	No initial sediment discharge, clear very slightly yellow
4	50	16	Clear very slightly yellow
6	100	15	Clear very slightly yellow
60	100	207	Clear yellow

Filter Cake Quality: Good, soft top

Release from Cloth: Good, no blinding

% Solids (w/w): 48.14

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 13

Slurry ID: S3-4-HC-15-1 OF SS

Feed Solids: 14.45

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1000ppm

Date/Time: 4/22/05 1010

Tech: JL

Press Time: 120 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	25	No initial sediment discharge, clear, colorless
4	50	14	Clear, very slightly yellow
6	100	15	Clear, very slightly yellow
60	100	165	Slightly cloudy, yellow

Filter Cake Quality: Very good, slightly soft top

Release from Cloth: Good, no blinding

% Solids (w/w): 54.59

Additional Comments:

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP OF SS 14

Slurry ID: S3-4-HC-25-2 OF SS

Feed Solids: 21.15

Sample Volume: 500mL

Polymer ID: Developmental "E"

Dosage: 1800ppm

Date/Time: 4/22/05 1315

Tech: JL

Press Time: 120 min

Max. Pressure: 100 psi

Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Volume (mL)	Filtrate Observations
2	25	16	No initial sediment discharge, clear, slightly yellow
4	50	10	Clear, slightly yellow
6	100	10	Clear, slightly yellow
60	100	100	Clear, yellow

Filter Cake Quality: Fair, soft/slightly wet center

Release from Cloth: Good, no blinding

% Solids (w/w): 54.39

Additional Comments:

Hudson River Treatability Study
Bench Filter Press Data Summary

Test ID	Slurry ID	Feed % Solids	Polymer	Dose (ppm)	Time / Pressure	Cake % Solids	Cake Quality
BFP-168	S2-2-07 < #100	3.84	Dev "E"	500	60 min / 100 psi	46.13	Fair
BFP-169	S2-2-07 < #200	3.84	Dev "E"	500	60 min / 100 psi	48.85	Good
BFP-170	S2-2-07 < #400	3.84	Dev "E"	500	60 min / 100 psi	45.38	Good
BFP-171	S2-2-07 < #100	5.00	Dev "E"	500	60 min / 100 psi	57.13	Very good
BFP-172	S2-2-07 < #100	10.00	Dev "E"	500	60 min / 100 psi	65.82	Excellent
BFP-173	S2-2-07 < #100	14.90	Dev "E"	500	60 min / 100 psi	66.73	Excellent
BFP-174	S2-2-07 < #100	3.84	Dev "E"	500	60 min / 100 psi	--	Very Poor
BFP-175	S2-2-07 < #100	3.84	Dev "E"	500	120 min / 100 psi	55.06	Good
BFP-176	S2-2-07 < #200	3.84	Dev "E"	500	120 min / 100 psi	52.33	Very good
BFP-177	S2-2-07 < #400	3.84	Dev "E"	500	120 min / 100 psi	50.05	Very good
BFP-178	S2-2-07 < #100	3.84	Dev "E"	500	120 min / 100 psi	63.03	Excellent
BFP-179	S2-2-07 < #100	5.00	Dev "E"	500	120 min / 100 psi	63.38	Excellent
BFP-180	S2-2-07 < #100	10.00	Dev "E"	500	120 min / 100 psi	64.56	Excellent
BFP-181	S2-2-08 < #100	14.35	Dev "E"	500	120 min / 100 psi	68.04	Excellent
BFP-182	S2-2-08 < #100	3.84	Dev "E"	500	60 min / 100 psi	58.93	Very good
BFP-183	S2-2-07 < #200	3.84	Dev "E"	500	180 min / 100 psi	56.71	Very good
BFP-184	S2-2-07 < #400	3.84	Dev "E"	500	180 min / 100 psi	43.60	Good
BFP-185	S2-2-08 < #100	3.84	Dev "E"	200	60 min / 100 psi	60.22	Good
BFP-186	S2-2-07 < #200	3.84	Dev "E"	200	60 min / 100 psi	48.33	Good
BFP-187	S2-2-07 < #400	3.84	Dev "E"	200	60 min / 100 psi	39.52	Fair
BFP-188	S2-2-08 < #400	3.84	Dev "E"	500	180 min / 100 psi	52.35	Very good
BFP-189	S2-2-08 < #100	5.00	Dev "E"	500	180 min / 100 psi	68.53	Excellent
BFP-190	S2-2-08 < #100	10.00	Dev "E"	500	180 min / 100 psi	70.98	Excellent
BFP-191	S2-2-08 < #200 SS	~11	Dev "E"	600	60 min / 100 psi	55.20	Very good

Hudson River Treatability Study

Bench Filter Press Data Summary

Test ID	Slurry ID	Feed % Solids	Polymer	Dose (ppm)	Time / Pressure	Cake % Solids	Cake Quality
BFP-185	S2-2-08 < #100	3.84	Dev "E"	200	60 min / 100 psi	60.22	Very good
BFP-182	S2-2-08 < #100	3.84	Dev "E"	500	60 min / 100 psi	58.93	Very good
BFP-178	S2-2-07 < #100	3.84	Dev "E"	500	120 min / 100 psi	63.03	Excellent
BFP-186	S2-2-07 < #200	3.84	Dev "E"	200	60 min / 100 psi	48.33	Good
BFP-169	S2-2-07 < #200	3.84	Dev "E"	500	60 min / 100 psi	48.85	Good
BFP-176	S2-2-07 < #200	3.84	Dev "E"	500	120 min / 100 psi	52.33	Very good
BFP-183	S2-2-07 < #200	3.84	Dev "E"	500	180 min / 100 psi	56.71	Very good
BFP-187	S2-2-07 < #400	3.84	Dev "E"	200	60 min / 100 psi	39.52	Fair
BFP-170	S2-2-07 < #400	3.84	Dev "E"	500	60 min / 100 psi	45.38	Good
BFP-177	S2-2-07 < #400	3.84	Dev "E"	500	120 min / 100 psi	50.05	Very good
BFP-188	S2-2-08 < #400	3.84	Dev "E"	500	180 min / 100 psi	52.35	Very good

Fast mix used to keep coarse grains suspended

Test ID	Slurry ID	Feed % Solids	Polymer	Dose (ppm)	Time / Pressure	Cake % Solids	Cake Quality
BFP-171	S2-2-07 < #100	5.00	Dev "E"	500	60 min / 100 psi	57.13	Very good
BFP-179	S2-2-07 < #100	5.00	Dev "E"	500	120 min / 100 psi	63.38	Excellent
BFP-189	S2-2-08 < #100	5.00	Dev "E"	500	180 min / 100 psi	68.53	Excellent
BFP-172	S2-2-07 < #100	10.00	Dev "E"	500	60 min / 100 psi	65.82	Excellent
BFP-180	S2-2-07 < #100	10.00	Dev "E"	500	120 min / 100 psi	64.56	Excellent
BFP-190	S2-2-08 < #100	10.00	Dev "E"	500	180 min / 100 psi	70.98	Excellent
BFP-173	S2-2-07 < #100	14.90	Dev "E"	500	60 min / 100 psi	66.73	Excellent
BFP-181	S2-2-08 < #100	14.35	Dev "E"	500	120 min / 100 psi	68.04	Excellent

Blew through at 105 min.

Test ID	Slurry ID	Feed % Solids	Polymer	Dose (ppm)	Time / Pressure	Cake % Solids	Cake Quality
BFP-168	S2-2-07 < #100	3.84	Dev "E"	500	60 min / 100 psi	46.13	Fair
BFP-174	S2-2-07 < #100	3.84	Dev "E"	500	60 min / 100 psi	--	Very Poor
BFP-175	S2-2-07 < #100	3.84	Dev "E"	500	120 min / 100 psi	55.06	Good
BFP-184	S2-2-07 < #400	3.84	Dev "E"	500	180 min / 100 psi	43.60	Good

Coarse solids drop out in feed chamber, sample not filter pressing properly. BFP 175 blew through at 78 min. Attempt fast mix in chamber for future presses w/ this feed.

Very clogged neck in cake chamber -- suspect flow to cake chamber was blocked.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-168

Slurry ID: S2-2-07 <#100
Feed Solids: 3.84%
Sample Vol.: 1.5 L
Date/Time: 6/1/05 1220
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 60 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	210	210	Sediment in initial discharge. Clear, colorless
4	50	98	308	Clear, colorless
6	100	76	384	Clear, colorless
60	100	945	1329	Clear, colorless

Filter Cake Quality: Fair

Release from Cloth: Good, some sticking, little bit of blinding

% Solids (w/w): 46.13

Additional Comments: Cake had a wet top and middle.
Feed did not press properly -- coarse solids drop out in feed chamber.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-169

Slurry ID: S2-2-07 <#200 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/1/05 1240 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	118	118	Sediment in initial discharge. Clear, colorless
4	50	58	176	Clear, colorless
6	100	46	222	Clear, colorless
60	100	390	612	Clear, colorless

Filter Cake Quality: Good

Release from Cloth: Good, no blinding

% Solids (w/w): **48.85**

Additional Comments: Firm cake with a soft spot on top. Partially clogged neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-170

Slurry ID: S2-2-07 <#400 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/1/05 1300 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	80	80	Sediment in initial discharge. Clear, colorless
4	50	42	122	Clear, colorless
6	100	35	157	Clear, colorless
60	100	260	417	Clear, colorless

Filter Cake Quality: Good

Release from Cloth: Good, no blinding

% Solids (w/w): **45.38**

Additional Comments: Firm cake with a soft spot on top.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-171

Slurry ID: S2-2-07 <#100 Polymer ID: Developmental E
Feed Solids: 5.00% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/1/2005 1510 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	200	200	Clear, colorless
4	50	110	310	Clear, colorless
6	100	63	373	Clear, colorless
60	100	793	1166	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Good, some sticking, no blinding

% Solids (w/w): 57.13

Additional Comments: Soft spot on top. Soft clog in neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-172

Slurry ID: S2-2-07 <#100
Feed Solids: 10.00%
Sample Vol.: 1.5 L
Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 60 min
Date/Time: 6/1/2005 1515
Tech: SC
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	105	105	Sediment in initial discharge. Clear, colorless
4	50	57	162	Clear, colorless
6	100	50	212	Clear, colorless
60	100	155	367	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Very good, no blinding

% Solids (w/w): 65.82

Additional Comments: Very hard cake. Clogged neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-173

Slurry ID: S2-2-07 <#100 Polymer ID: Developmental E
Feed Solids: 15.00% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/1/2005 1525 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	53	53	Sediment in initial discharge. Clear, colorless
4	50	51	104	Clear, colorless
6	100	37	141	Clear, colorless
60	100	184	325	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Very good, no blinding

% Solids (w/w): 66.73

Additional Comments: Very hard cake. Hard clog in neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-174

Slurry ID: S2-2-07 <#100
Feed Solids: 3.84%
Sample Vol.: 1.5 L
Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 60 min
Date/Time: 6/2/2005 0915
Tech: SC
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	174	174	Sediment in initial discharge. Clear, colorless
4	50	86	260	Clear, colorless
6	100	85	345	Clear, colorless
60	100	766	1111	Clear, colorless

Filter Cake Quality: Very Poor

Release from Cloth: Good, no blinding

% Solids (w/w):

Additional Comments: Cake had a soft, wet middle and top.
Feed did not press properly -- coarse solids drop out in feed chamber.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-175

Slurry ID: S2-2-07 <#100
Feed Solids: 3.84%
Sample Vol.: 1.5 L
Date/Time: 6/2/2005 0930
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 120 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	210	210	Clear, colorless
4	50	90	300	Clear, colorless
6	100	74	374	Clear, colorless
120	100	1040	1414	Clear, colorless

Filter Cake Quality: Good

Release from Cloth: Good, some sticking, a little blinding

% Solids (w/w): 55.06

Additional Comments: Blew through at 1:18. Cake had a soft top.
Feed did not press properly -- coarse solids drop out in feed chamber.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-176

Slurry ID: S2-2-07 <#200 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 120 min
Date/Time: 6/2/2005 0940 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	110	110	Clear, colorless
4	50	43	153	Clear, colorless
6	100	40	193	Clear, colorless
120	100	1014	1207	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good, no blinding

% Solids (w/w): 52.33

Additional Comments: Solid cake with a soft spot on top.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-177

Slurry ID: S2-2-07 <#400 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 120 min
Date/Time: 6/1/2005 1000 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	50	50	Sediment in initial discharge. Clear, colorless
4	50	40	90	Clear, colorless
6	100	41	131	Clear, colorless
120	100	452	583	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good, no blinding

% Solids (w/w): 50.05

Additional Comments: Solid throughout.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-178

Slurry ID: S2-2-07 <#100 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 2 L Press Time: 120 min
Date/Time: 6/1/2005 1210 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	189	189	Sediment in initial discharge. Clear, colorless
4	50	70	259	Clear, colorless
6	100	46	305	Clear, colorless
120	100	510	815	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Excellent, no blinding

% Solids (w/w): 63.03

Additional Comments: Hard, dry cake. Soft clog in neck.
Feed was mixed at high speed to suspend coarse solids.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-179

Slurry ID: S2-2-07 <#100
Feed Solids: 5.00%
Sample Vol.: 1.5 L
Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 120 min
Date/Time: 6/2/2005 1415
Tech: SC
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	156	156	Sediment in initial discharge. Clear, colorless
4	50	67	223	Clear, colorless
6	100	42	265	Clear, colorless
120	100	1091	1356	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Excellent, no blinding

% Solids (w/w): 63.38

Additional Comments: Blew through at 1:45. Cake was hard and dry. Soft clog in ne

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-180

Slurry ID: S2-2-07 <#100
Feed Solids: 10.00%
Sample Vol.: 1.5 L
Date/Time: 6/2/2005 1425
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 120 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	88	88	Sediment in initial discharge. Clear, colorless
4	50	55	143	Clear, colorless
6	100	40	183	Clear, colorless
120	100	216	399	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Excellent, no blinding

% Solids (w/w): **64.56**

Additional Comments: Hard, dry cake. Very clogged neck of mold and tank.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-181

Slurry ID: S2-2-08 <#100 Polymer ID: Developmental E
Feed Solids: 14.35% Dosage: 500 ppm
Sample Vol.: 1.5 L Press Time: 120 min
Date/Time: 6/3/2005 0850 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	59	59	Sediment in initial discharge. Clear, colorless
4	50	50	109	Clear, colorless
6	100	50	159	Clear, colorless
60	100	140	299	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Very good, no blinding

% Solids (w/w): **68.04**

Additional Comments: Cake was hard throughout. Very clogged neck.
Filtrate flow ceased at 1:10.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-182

Slurry ID: S2-2-08 <#100
Feed Solids: 3.84%
Sample Vol.: 1.5 L
Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 60 min
Date/Time: 6/3/2005 1010
Tech: SC
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	302	302	Sediment in initial discharge. Clear, colorless
4	50	162	464	Clear, colorless
6	100	129	593	Clear, colorless
60	100	772	1365	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Good, some sticking, no blinding

% Solids (w/w): 58.93

Additional Comments: Solid cake with a soft top into middle. Soft clog in neck.
Feed was mixed at high speed to suspend coarse solids.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-183

Slurry ID: S2-2-07 <#200 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 2 L Press Time: 180 min
Date/Time: 6/3/2005 1010 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	110	110	Sediment in initial discharge. Clear, colorless
4	50	48	158	Clear, colorless
6	100	45	203	Clear, colorless
180	100	371	574	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good release, no blind

% Solids (w/w): 56.71

Additional Comments: Very clogged neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-184

Slurry ID: S2-2-07 <#400 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 500 ppm
Sample Vol.: 2 L Press Time: 180 min
Date/Time: 6/3/2005 1020 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	81	81	Sediment in initial discharge. Clear, colorless
4	50	39	120	Clear, colorless
6	100	29	149	Clear, colorless
180	100	200	349	Clear, colorless

Filter Cake Quality: Good

Release from Cloth: Very good, no blind

% Solids (w/w): **43.60**

Additional Comments: Cake was consistent throughout, slightly soft.
Very clogged neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-185

Slurry ID: S2-2-08 <#100 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 200 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/3/2005 1500 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	165	165	Clear, colorless
4	50	91	256	Clear, colorless
6	100	86	342	Clear, colorless
180	100	772	1114	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good, no blinding

% Solids (w/w): 60.22

Additional Comments: Cake was solid with a soft top. Soft clog in neck.
Feed was mixed at high speed to suspend coarse solids.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-186

Slurry ID: S2-2-07 <#200 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 200 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/3/2005 1500 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	91	91	Clear, colorless
4	50	42	133	Clear, colorless
6	100	38	171	Clear, colorless
180	100	330	501	Clear, colorless

Filter Cake Quality: Good

Release from Cloth: Very good, no blinding

% Solids (w/w): 48.33

Additional Comments: Cake had a very soft top. Soft clog in neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-187

Slurry ID: S2-2-07 <#400 Polymer ID: Developmental E
Feed Solids: 3.84% Dosage: 200 ppm
Sample Vol.: 1.5 L Press Time: 60 min
Date/Time: 6/3/2005 1500 Max. Pressure: 100 psi
Tech: SC Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	54	54	Clear, very slight yellow
4	50	34	88	Clear, colorless
6	100	32	120	Clear, colorless
180	100	265	385	Clear, colorless

Filter Cake Quality: Fair

Release from Cloth: Very good, no blinding

% Solids (w/w): 39.52

Additional Comments: Cake had a very soft top and center.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-188

Slurry ID: S2-2-08 <#400
Feed Solids: 3.84%
Sample Vol.: 2 L
Date/Time: 6/8/2005 1335
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 180 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	68	68	Clear, colorless
4	50	48	116	Clear, colorless
6	100	38	154	Clear, colorless
180	100	357	511	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good, no blinding

% Solids (w/w): 52.35

Additional Comments: Cake was firm throughout. Clogged neck.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-189

Slurry ID: S2-2-08 <#100
Feed Solids: 5.00%
Sample Vol.: 2 L
Date/Time: 6/8/2005 1340
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 180 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	217	217	Clear, colorless
4	50	93	310	Clear, colorless
6	100	86	396	Clear, colorless
180	100	587	983	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Good, some sticking, no blinding

% Solids (w/w): **68.53**

Additional Comments: Very hard, dry cake. Very clogged neck.
Feed was mixed at high speed to suspend coarse solids.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-190

Slurry ID: S2-2-08 <#100
Feed Solids: 10.00%
Sample Vol.: 2 L
Date/Time: 6/8/2005 1345
Tech: SC

Polymer ID: Developmental E
Dosage: 500 ppm
Press Time: 180 min
Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	105	105	Clear, colorless
4	50	66	171	Clear, colorless
6	100	62	233	Clear, colorless
180	100	139	372	Clear, colorless

Filter Cake Quality: Excellent

Release from Cloth: Very good, very slight sticking, no blinding

% Solids (w/w): 70.98

Additional Comments: Very hard, dry cake. Very clogged neck.
Feed was mixed at high speed to suspend coarse solids.

Hudson River Treatability Study

Bench Filter Press Data Sheet

Test Number: BFP-191

Slurry ID: S2-2-07 <#200 (15%) SS Polymer ID: Developmental E
Feed Solids:
Sample Vol.: 1 L Dosage: 600 ppm
Date/Time: 6/9/2005 1410 Press Time: 60 min
Tech: SC Max. Pressure: 100 psi
Filter Cloth: Crosible 85x/5

Time (min)	Pressure (psi)	Filtrate Vol. measured (mL)	Total Filtrate Volume (mL)	Filtrate Observations
2	25	69	69	Clear, colorless
4	50	39	108	Clear, colorless
6	100	35	143	Clear, colorless
60	100	222	365	Clear, colorless

Filter Cake Quality: Very good

Release from Cloth: Very good, no blinding

% Solids (w/w): 55.20

Additional Comments: Cake was firm throughout. Clogged neck.
Feed was the settled solids recovered after settling tests on S2-2-07 <#200, 3.24% solids.
Polymer was added for settling test; no additional polymer was added prior to filter press test.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT SUMMARY

Test Day	Turbidity (NTU)						Flow Rate (mL/min)						
	P1	Y1	G1	P2	Y2	G2	P1	Y1	G1	P2	Y2	G2	AVG
0	0.055	0.079	0.159	0.268	0.082	0.117	7.20	6.97	6.97	7.22	7.28	6.58	7.03
1	0.174	0.121	0.098	0.206	0.193	0.165	6.71	6.53	6.57	6.75	6.79	6.19	6.59
2	0.095	0.184	0.124	0.109	0.191	0.108	6.56	6.36	6.43	6.41	6.57	6.08	6.40
3	0.208	0.199	0.140	0.139	0.228	0.141	0.82	5.13	5.94	4.14	2.75	4.57	3.89
4	0.148	NA	0.137	NA	NA	NA	6.28	2.73	6.43	3.24	4.47	2.42	4.26
5	0.139	NA	0.128	NA	NA	NA	6.07	1.50	6.26	1.68	1.91	0.94	3.06
6													
7	0.104	0.177	0.105	0.102	0.183	0.131	6.84	6.95	6.92	6.67	6.77	6.62	6.80
8	0.156	0.129	0.160	0.140	0.131	0.114	6.83	6.86	6.93	6.60	6.70	6.56	6.75
9	0.132	0.130	0.181	0.215	0.123	0.130	6.77	6.69	6.84	6.47	6.57	6.45	6.63
10	0.137	0.147	0.180	0.149	0.124	0.181	6.85	6.76	6.77	6.27	6.62	6.42	6.62
11	0.116	0.111	0.147	0.120	0.136	0.147	6.72	6.73	6.80	6.54	6.60	6.52	6.65
12	0.100	0.104	0.145	0.088	0.091	0.150	6.82	6.74	6.85	6.63	6.66	6.60	6.71
13	0.115	0.150	0.104	0.099	0.165	0.105	6.74	6.73	6.76	6.68	6.14	6.70	6.63
14	0.145	0.091	0.085	0.144	0.092	0.154	6.80	6.72	6.87	6.59	6.60	6.57	6.69
15	0.182	0.118	0.164	0.101	0.156	0.098	6.75	6.69	6.76	6.62	6.68	6.61	6.69
16	0.122	0.250	0.145	0.112	0.106	0.140	6.73	6.68	6.83	6.59	6.48	6.42	6.62
17	0.131	0.218	0.097	0.121	0.099	0.088	6.61	6.49	6.21	6.29	6.41	6.40	6.40
18	0.122	0.155	0.086	0.102	0.134	0.117	6.65	6.58	6.75	6.25	6.53	6.47	6.54
19	0.127	0.243	0.097	0.094	0.101	0.109	6.60	6.56	6.70	6.45	6.48	6.41	6.53
20	0.127	0.127	0.119	0.076	0.115	0.142	6.44	6.44	6.44	6.19	6.18	6.23	6.32
21	0.089	0.122	0.088	0.130	0.120	0.112	6.48	6.47	6.52	6.28	5.63	6.27	6.28
22	0.141	0.115	0.131	0.083	0.138	0.080	6.67	6.55	6.73	6.41	6.48	6.39	6.54
23	0.179	0.114	0.120	0.112	0.146	0.080	6.63	6.49	6.70	6.28	6.42	6.37	6.48
24	0.222	0.152	0.094	0.137	0.127	0.078	6.79	6.56	6.89	6.31	6.34	6.50	6.57
25	0.149	0.141	0.094	0.172	0.153	0.085	6.68	6.58	6.77	6.10	6.60	6.45	6.53
26	0.162	0.155	0.100	0.125	0.117	0.062	6.41	6.40	6.44	6.30	6.46	6.29	6.38
27	0.110	0.099	0.133	0.057	0.139	0.095	6.46	6.54	6.53	6.28	6.43	6.33	6.43
28	0.187	0.168	0.112	0.078	0.114	0.090	6.52	6.57	6.58	6.46	6.29	6.34	6.46

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT SUMMARY

Test Day	Turbidity (NTU)						Flow Rate (mL/min)						
	P1	Y1	G1	P2	Y2	G2	P1	Y1	G1	P2	Y2	G2	AVG
29	0.103	0.187	0.112	0.095	0.100	0.139	6.50	6.54	6.57	6.44	6.22	6.33	6.43
30	0.144	0.119	0.094	0.131	0.101	0.093	6.60	6.59	6.62	6.50	6.03	6.40	6.46
31	0.100	0.172	0.109	0.111	0.091	0.094	6.49	6.42	6.37	6.31	5.55	6.25	6.23
32	No Samples Taken												
33	No Samples Taken												
34	No Samples Taken												
35	0.113	0.103	0.124	0.128	0.098	0.082	6.58	6.57	6.75	6.42	6.56	6.52	6.57
36	0.093	0.177	0.134	0.110	0.063	0.086	6.48	6.51	6.65	6.44	6.54	6.53	6.53
37	0.112	0.133	0.074	0.146	0.093	0.082	6.47	6.53	6.49	6.48	6.60	6.56	6.52
38	0.118	0.194	0.083	0.099	0.106	0.080	6.54	6.61	6.15	6.52	6.64	6.62	6.51
39	No Samples Taken												0.00
40	No Samples Taken												0.00
41	0.101	0.109	0.080	0.110	0.086	0.123	6.56	6.57	6.57	6.62	6.62	6.64	6.60
42	0.110	0.115	0.085	0.106	0.077	0.128	6.47	6.58	6.59	6.55	6.54	6.55	6.55
43	0.083	0.140	0.082	0.150	0.090	0.086	6.61	6.59	6.60	6.56	6.56	6.56	6.58
44	0.087	0.130	0.090	0.094	0.118	0.075	6.65	6.68	6.67	6.55	6.54	6.56	6.61
45	0.154	0.157	0.078	0.136	0.080	0.080	6.64	6.56	6.63	6.37	6.50	6.65	6.56
46	No Samples Taken												0.00
47	No Samples Taken												0.00
48	0.141	0.086	0.115	0.107	0.111	0.091	6.57	6.51	6.59	6.42	6.54	6.66	6.55
49	0.110	0.158	0.093	0.095	0.096	0.081	6.64	6.62	6.66	6.60	6.61	6.77	6.65
50	0.136	0.163	0.165	0.095	0.070	0.099	6.62	6.50	6.58	6.48	6.49	6.64	6.55
51	0.081	0.109	0.148	0.094	0.093	0.135	6.56	6.45	6.73	6.43	6.51	6.40	6.51
52	0.076	0.101	0.081	0.125	0.088	0.093	6.55	6.38	6.54	6.28	6.55	6.06	6.39
53	No Samples Taken												0.00
54	No Samples Taken												0.00
55	0.120	0.091	0.086	0.083	0.084	0.075	6.52	6.43	6.57	6.44	6.54	5.94	6.41
56	0.099	0.305	0.111	0.098	0.077	0.095	6.50	6.43	6.56	6.37	6.51	5.95	6.39

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT SUMMARY

Test Day	Turbidity (NTU)						Flow Rate (mL/min)						
	P1	Y1	G1	P2	Y2	G2	P1	Y1	G1	P2	Y2	G2	AVG
57	0.159	0.101	0.078	0.094	0.072	0.067	6.46	6.43	6.55	6.27	6.57	5.98	6.38
58	0.098	0.107	0.076	0.092	0.070	0.163	6.57	6.77	6.62	6.68	6.63	6.43	6.62
59	0.095	0.086	0.109	0.088	0.061	0.149	6.47	6.69	6.55	6.60	6.50	6.33	6.52
60	No Samples Taken											0.00	
61	No Samples Taken											0.00	
62	0.143	0.157	0.103	0.093	0.101	0.131	6.58	6.71	6.63	6.65	6.43	6.34	6.56
63	0.098	0.087	0.081	0.128	0.108	0.295	6.60	6.68	6.66	6.69	6.45	6.19	6.55
64	0.075	0.084	0.090	0.103	0.074	0.156	6.53	6.58	6.61	6.63	6.82	5.97	6.52
65	0.132	0.106	0.134	0.137	0.099	0.131	6.53	6.56	6.61	6.62	6.36	5.75	6.41
66	0.102	0.116	0.103	0.122	0.076	0.085	6.44	6.59	6.49	6.59	6.37	5.76	6.37
67	No Samples Taken											0.00	
68	No Samples Taken											0.00	
69	No Samples Taken											0.00	
70	0.140	0.133	0.092	0.123	0.119	0.106	6.49	6.52	6.51	6.55	6.47	4.94	6.25
71	0.176	0.137	0.123	0.111	0.128	0.104	6.42	6.24	6.32	6.68	6.46	5.24	6.23
72	0.124	0.124	0.158	0.106	0.112	0.133	6.40	5.96	6.43	6.68	6.48	4.59	6.09
73	0.152	0.203	0.213	0.144	0.141	0.148	6.34	5.97	6.41	6.64	6.44	4.22	6.00
74	No Samples Taken											0.00	
75	No Samples Taken											0.00	
76	0.151	0.182	0.162	0.136	0.149	0.151	6.47	6.26	6.62	6.61	6.46	2.92	5.89
77	0.170	0.257	0.187	0.162	0.211	0.150	6.51	6.30	5.74	6.22	6.50	2.59	5.64
78	0.302	0.217	0.282	0.165	0.153	0.114	6.48	6.29	5.11	6.04	6.47	2.15	5.42
79	0.177	0.177	0.184	0.153	0.136	0.116	6.44	6.20	4.12	5.43	6.50	1.84	5.09
80	0.144	0.169	0.157	0.151	0.135	0.123	6.85	6.45	3.56	5.17	6.87	1.60	5.08
81	No Samples Taken											0.00	
82	No Samples Taken											0.00	
83	0.148	0.199	0.136	0.182	0.153	0.127	6.13	6.58	2.61	5.00	5.46	1.22	4.50
84	0.162	0.170	0.235	0.177	0.184	0.171	5.45	6.54	2.35	4.98	4.98	1.11	4.24

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT

RSSCT SUMMARY

Test Day	Turbidity (NTU)						Flow Rate (mL/min)						
	P1	Y1	G1	P2	Y2	G2	P1	Y1	G1	P2	Y2	G2	AVG
85	NA	NA	NA	NA	NA	NA	5.27	6.56	2.14	4.99	4.94	1.02	4.15
86													0.00
87													0.00
88	No Samples Taken												0.00
89	No Samples Taken												0.00
90													0.00
91													0.00
92													0.00
93													0.00
94													0.00

Sample Legend:

P1 = single column with Calgon carbon

Y1 = single blank column

G1 = single column with NORIT carbon

P2 = double column with Calgon carbon

Y2 = double blank column

G2 = double column with NORIT carbon

Group Zip Tie Color (Single Column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass <i>Empty</i> (g)	Bottle Mass <i>w/ H₂O</i> (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Orange	Pink	0	4/26/2005	14	500.1	1556.6	10:27:00	12:53:45				0.055
Orange	Pink	1	4/27/2005	13	500.5	1537.2	8:44:00	11:18:30				0.174
Orange	Pink	2	4/28/2005	15	501.6	1539.0	9:27:45	12:06:00				0.095
Orange	Pink	3	4/29/2005	13	500.3	805.3	9:54:30	16:06:30				0.208
Orange	Pink	4	4/30/2005	15	500.4	1539.5	10:57:30	13:43:00				0.148
Orange	Pink	5	5/1/2005	13	501.8	1512.7	10:18:00	13:04:30				0.139
Orange	Pink	6							low flows, no samples			
Orange	Pink	7	5/3/2005	15	499.7	1539.8	8:35:00	11:07:00				16:00:00
Orange	Pink	8	5/4/2005	14	501.5	1540.4	9:23:15	11:55:15				0.156
Orange	Pink	9	5/5/2005	13	499.47	1550.8	8:46:30	11:21:45				0.132
Orange	Pink	10	5/6/2005	15	499.2	1533.4	10:31:00	13:02:00				0.137
Orange	Pink	11	5/7/2005	15	499.9	1524.0	9:17:15	11:49:45				0.116
Orange	Pink	12	5/8/2005	16	499.3	1511.6	9:36:00	12:04:30				0.100
Orange	Pink	13	5/9/2005	18	499.1	1556.1	8:55:45	11:32:30				11:45:30
Orange	Pink	14	5/10/2005	18	499.2	1532.7	9:26:00	11:58:00				14:36:00
Orange	Pink	15	5/11/2005	19	499.5	1556.8	8:47:00	11:23:45				0.115
Orange	Pink	16	5/12/2005	20	499.4	1530.8	8:35:00	11:08:15				0.145
Orange	Pink	17	5/13/2005	16	500.5	1555.5	9:08:45	11:48:15				0.182
Orange	Pink	18	5/14/2005	16	500.8	1537.9	9:12:30	11:48:30				0.122
Orange	Pink	19	5/15/2005	15	500.8	1544.7	9:07:15	11:45:30				0.127
Orange	Pink	20	5/16/2005	15	500.0	1555.8	9:11:30	11:55:30				0.127
Orange	Pink	21	5/17/2005	11	500.3	1550.0	9:11:30	11:53:30				0.089

Sample Legend:

05162672

Page 1 of 4

P1 = single column with Calgon carbon

Orange	Pink	22	5/18/2005	12	500.3	1542.8	8:54:00	11:30:15		11:39:00	14:29:30	0.141
Orange	Pink	23	5/19/2005	15	499.5	1538.7	9:00:45	11:37:30				0.179
Orange	Pink	24	5/20/2005	16	499.5	1539.5	8:58:00	11:31:15		11:54:00	14:40:00	0.222
Orange	Pink	25	5/21/2005	17	500.3	1473.6	9:27:30	11:53:15				0.149
Orange	Pink	26	5/22/2005	18	500.1	1559.1	9:47:30	12:32:45				0.162
Orange	Pink	27	5/23/2005	17	388.8	1338.6	9:03:00	11:30:00				0.110
Orange	Pink	28	5/24/2005	17	499.6	1547.3	8:58:45	11:39:30		11:53:00		0.187
Orange	Pink	29	5/25/2005	16	500.0	1536.3	9:02:30	11:42:00				0.103
Orange	Pink	30	5/26/2005	15	499.4	1536.0	9:05:15	11:42:15				0.144
Orange	Pink	31	5/27/2005	17	499.7	1542.2	10:07:15	12:48:00				0.100
Orange	Pink	32	5/28/2005						No Samples Taken			
Orange	Pink	33	5/29/2005	18					No Samples Taken			
Orange	Pink	34	5/30/2005						No Samples Taken			
Orange	Pink	35	5/31/2005	17	499.3	1524.4	8:44:00	11:19:45		11:32:00		0.113
Orange	Pink	36	6/1/2005	18	499.7	1523.6	8:49:00	11:27:00				0.093
Orange	Pink	37	6/2/2005	19	499.1	1521.6	8:22:00	11:00:00		11:09:00		0.112
Orange	Pink	38	6/3/2005	20	499.7	1526.3	9:16:00	11:53:00				0.118
Orange	Pink	39	6/4/2005						No Samples Taken			
Orange	Pink	40	6/5/2005	22					No Samples Taken			
Orange	Pink	41	6/6/2005	21	499.5	1549.1	9:00:00	11:40:00		11:52:00		0.101
Orange	Pink	42	6/7/2005	22	499.4	1547.8	8:45:45	11:27:45				0.110
Orange	Pink	43	6/8/2005	23	495.3	1548.7	8:59:15	11:38:30				0.083
Orange	Pink	44	6/9/2005	23	496.4	1544.8	8:52:15	11:30:00		11:44:00		0.087
Orange	Pink	45	6/10/2005	25	499.5	1521.8	9:37:00	12:11:00				0.154

Sample Legend:

P1 = single column with Calgon carbon

Orange	Pink	46	6/11/2005					No Samples Taken			
Orange	Pink	47	6/12/2005	22				No Samples Taken			
Orange	Pink	48	6/13/2005	25	498.8	1546.6	8:49:00	11:28:30			0.141
Orange	Pink	49	6/14/2005	25	499.3	1541.5	9:24:30	12:01:30			0.110
Orange	Pink	50	6/15/2005	24	499.6	1535.4	9:10:30	11:47:00		12:00:00	0.136
Orange	Pink	51	6/16/2005	23	499.4	1546.5	9:15:30	11:55:00			0.081
Orange	Pink	52	6/17/2005	21	499.8	1558.2	9:05:00	11:46:30			0.076
Orange	Pink	53	6/18/2005					No Samples Taken			
Orange	Pink	54	6/19/2005	19				No Samples Taken			
Orange	Pink	55	6/20/2005	18	499.0	1545.8	8:52:00	11:32:30			0.120
Orange	Pink	56	6/21/2005	19	498.9	1537.8	8:25:45	11:05:30			0.099
Orange	Pink	57	6/22/2005	20	499.1	1529.6	8:42:30	11:22:00		11:32:00	0.159
Orange	Pink	58	6/23/2005	21	499.3	1527.2	9:52:30	12:29:00			0.098
Orange	Pink	59	6/24/2005	21	495.6	1502.6	8:43:45	11:19:30			0.095
Orange	Pink	60	6/25/2005					No Samples Taken			
Orange	Pink	61	6/26/2005	25				No Samples Taken			
Orange	Pink	62	6/27/2005	25	496.2	1497.8	9:31:45	12:04:00			0.143
Orange	Pink	63	6/28/2005	26	499.7	1524.3	9:40:30	12:15:45			0.098
Orange	Pink	64	6/29/2005	27	499.6	1512.4	8:44:45	11:19:45		11:31:30	0.075
Orange	Pink	65	6/30/2005	25	499.7	1524.9	8:30:00	11:07:00			0.132
Orange	Pink	66	7/1/2005	26	499.6	1530.5	9:20:00	12:00:00			0.102
Orange	Pink	67	7/2/2005					No Samples Taken			
Orange	Pink	68	7/3/2005					No Samples Taken			
Orange	Pink	69	7/4/2005					No Samples Taken			

Sample Legend:

P1 = single column with Calgon carbon

Orange	Pink	70	7/5/2005	27	499.4	1557.4	9:21:00	12:04:00				0.140
Orange	Pink	71	7/6/2005	25	499.4	1533.1	8:32:00	11:13:00		11:27:00		0.176
Orange	Pink	72	7/7/2005	26	499.7	1524.3	9:41:00	12:21:00				0.124
Orange	Pink	73	7/8/2005	25	495.9	1555.4	9:32:00	12:19:00				0.152
Orange	Pink	74	7/9/2005						No Samples Taken			
Orange	Pink	75	7/10/2005						No Samples Taken			
Orange	Pink	76	7/11/2005	25	498.3	1533.3	9:07:00	11:47:00				0.151
Orange	Pink	77	7/12/2005	26	498.0	1533.6	8:29:00	11:08:00				0.170
Orange	Pink	78	7/13/2005	26	496.6	1552.8	8:25:00	11:08:00		11:55:00		0.302
Orange	Pink	79	7/14/2005	27	495.1	1538.3	8:44:00	11:26:00				0.177
Orange	Pink	80	7/15/2005	27	499.7	1554.9	8:15:00	10:49:00				0.144
Orange	Pink	81	7/16/2005						No Samples Taken			
Orange	Pink	82	7/17/2005						No Samples Taken			
Orange	Pink	83	7/18/2005	28	498.4	1540.8	8:34:00	11:24:00				0.148
Orange	Pink	84	7/19/2005	27	496.9	1553.7	8:42:00	11:56:00				0.162
Orange	Pink	85	7/20/2005	26	120.9	226.3	8:53:00	9:13:00				NA

Sample Legend:

P1 = single column with Calgon carbon

Group Zip Tie Color (Single Column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass Empty (g)	Bottle Mass w/ H ₂ O (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Orange	Yellow	0	4/26/2005	14	500.4	1536.6	10:29:00	12:57:45				0.079
Orange	Yellow	1	4/27/2005	13	500.4	1533.3	8:44:45	11:23:00				0.121
Orange	Yellow	2	4/28/2005	15	502.3	1542.8	9:28:30	12:12:00				0.184
Orange	Yellow	3	4/29/2005	13	500.1	1521.1	9:55:00	13:14:00				0.199
Orange	Yellow	4	4/30/2005	15	500.6	1045.1	10:57:15	14:16:30				NA
Orange	Yellow	5	5/1/2005	13	501	749.9	10:19:00	13:05:15				NA
Orange	Yellow	6							low flows, no samples			
Orange	Yellow	7	5/3/2005	15	499.3	1546.9	8:36:45	11:07:30				16:00:00
Orange	Yellow	8	5/4/2005	14	500.7	1542.4	9:24:00	11:55:45				0.129
Orange	Yellow	9	5/5/2005	13	499	1536.4	8:47:00	11:22:00				0.130
Orange	Yellow	10	5/6/2005	15	500.1	1521.2	10:31:00	13:02:00				0.147
Orange	Yellow	11	5/7/2005	15	499.5	1523.9	9:17:45	11:50:00				0.111
Orange	Yellow	12	5/8/2005	16	501.9	1502.8	9:36:30	12:05:00				0.104
Orange	Yellow	13	5/9/2005	18	499.6	1554.7	8:55:45	11:32:30			11:45:30	14:36:00
Orange	Yellow	14	5/10/2005	18	499.5	1521.0	9:26:00	11:58:00				0.091
Orange	Yellow	15	5/11/2005	19	499.5	1548.6	8:47:00	11:23:45				0.118
Orange	Yellow	16	5/12/2005	20	499.7	1522.8	8:35:00	11:08:15			11:21:00	14:15:00
Orange	Yellow	17	5/13/2005	16	500.5	1536.1	9:08:45	11:48:15				0.218
Orange	Yellow	18	5/14/2005	16	500.0	1545.3	9:13:45	11:52:30				0.155
Orange	Yellow	19	5/15/2005	15	499.9	1539.3	9:07:45	11:46:15				0.243
Orange	Yellow	20	5/16/2005	15	500.3	1555.9	9:11:30	11:55:30			12:10:00	15:02:30
												0.127

Sample Legend:

Y1 = single blank column

Orange	Yellow	21	5/17/2005	11	500.5	1548.0	9:11:30	11:53:30				0.122
Orange	Yellow	22	5/18/2005	12	500.7	1525.4	8:54:00	11:30:30		11:39:00	14:29:30	0.115
Orange	Yellow	23	5/19/2005	15	499.5	1527.3	9:00:45	11:39:00				0.114
Orange	Yellow	24	5/20/2005	16	499.7	1545.6	8:58:00	11:37:30		11:54:00	14:40:00	0.152
Orange	Yellow	25	5/21/2005	17	501.1	1459.1	9:27:45	11:53:15				0.141
Orange	Yellow	26	5/22/2005	18	500.9	1558.1	9:47:30	12:32:45				0.155
Orange	Yellow	27	5/23/2005	17	388.7	1349.1	9:03:15	11:30:00				0.099
Orange	Yellow	28	5/24/2005	17	499.5	1555.4	8:58:45	11:39:30		11:53:00		0.168
Orange	Yellow	29	5/25/2005	16	499.8	1542.8	9:02:30	11:42:00				0.187
Orange	Yellow	30	5/26/2005	15	499.5	1532.7	9:05:30	11:42:15				0.119
Orange	Yellow	31	5/27/2005	17	499.5	1532.0	10:07:15	12:48:00				0.172
Orange	Yellow	32	5/28/2005						No Samples Taken			
Orange	Yellow	33	5/29/2005	18					No Samples Taken			
Orange	Yellow	34	5/30/2005						No Samples Taken			
Orange	Yellow	35	5/31/2005	17	499.8	1522.3	8:44:00	11:19:45		11:32:00		0.103
Orange	Yellow	36	6/1/2005	18	499.6	1527.5	8:49:00	11:27:00				0.177
Orange	Yellow	37	6/2/2005	19	499.4	1530.9	8:22:00	11:00:00		11:09:00		0.133
Orange	Yellow	38	6/3/2005	20	499.4	1536.4	9:16:00	11:53:00				0.194
Orange	Yellow	39	6/4/2005						No Samples Taken			
Orange	Yellow	40	6/5/2005	22					No Samples Taken			
Orange	Yellow	41	6/6/2005	21	499.8	1550.6	9:00:00	11:40:00		11:52:00		0.109
Orange	Yellow	42	6/7/2005	22	499.9	1546.2	8:48:45	11:27:45				0.115

Sample Legend:

Y1 = single blank column

Orange	Yellow	43	6/8/2005	23	496.3	1546.4	8:59:15	11:38:30					0.140
Orange	Yellow	44	6/9/2005	23	498.4	1551.6	8:52:15	11:30:00				11:44:00	0.130
Orange	Yellow	45	6/10/2005	25	498.7	1509.6	9:37:00	12:11:00					0.157
Orange	Yellow	46	6/11/2005									No Samples Taken	
Orange	Yellow	47	6/12/2005	22								No Samples Taken	
Orange	Yellow	48	6/13/2005	25	499.7	1538.6	8:49:00	11:28:30					0.086
Orange	Yellow	49	6/14/2005	25	499.1	1538.2	9:24:30	12:01:30					0.158
Orange	Yellow	50	6/15/2005	24	499.6	1516.4	9:10:30	11:47:00				12:00:00	0.163
Orange	Yellow	51	6/16/2005	23	499.2	1528.2	9:15:30	11:55:00					0.109
Orange	Yellow	52	6/17/2005	21	499.3	1529.7	9:05:00	11:46:30					0.101
Orange	Yellow	53	6/18/2005									No Samples Taken	
Orange	Yellow	54	6/19/2005	19								No Samples Taken	
Orange	Yellow	55	6/20/2005	18	499.1	1531.5	8:52:00	11:32:30					0.091
Orange	Yellow	56	6/21/2005	19	499.0	1525.5	8:25:45	11:05:30					0.305
Orange	Yellow	57	6/22/2005	20	499.4	1524.8	8:42:30	11:22:00				11:32:00	0.101
Orange	Yellow	58	6/23/2005	21	499.1	1555.8	9:52:30	12:28:30					0.107
Orange	Yellow	59	6/24/2005	21	498.6	1491.8	8:44:00	11:12:30					0.086
Orange	Yellow	60	6/25/2005									No Samples Taken	
Orange	Yellow	61	6/26/2005	25								No Samples Taken	
Orange	Yellow	62	6/27/2005	25	496.5	1517.4	9:32:00	12:04:15					0.157
Orange	Yellow	63	6/28/2005	26	499.9	1536.9	9:40:45	12:16:00					0.087
Orange	Yellow	64	6/29/2005	27	499.6	1517.1	8:45:15	11:20:00				11:31:30	0.084
Orange	Yellow	65	6/30/2005	25	499.6	1530.1	8:30:00	11:07:00					0.106

Sample Legend:

Y1 = single blank column

Orange	Yellow	66	7/1/2005	26	499.8	1554.5	9:20:00	12:00:00				0.116
Orange	Yellow	67	7/2/2005						No Samples Taken			
Orange	Yellow	68	7/3/2005						No Samples Taken			
Orange	Yellow	69	7/4/2005						No Samples Taken			
Orange	Yellow	70	7/5/2005	27	499.3	1554.9	9:21:00	12:03:00				0.133
Orange	Yellow	71	7/6/2005	25	499.2	1528.8	8:32:00	11:17:00		11:27:00		0.137
Orange	Yellow	72	7/7/2005	26	499.6	1523.9	9:41:00	12:33:00				0.124
Orange	Yellow	73	7/8/2005	25	496.9	1553.4	9:32:00	12:29:00				0.203
Orange	Yellow	74	7/9/2005						No Samples Taken			
Orange	Yellow	75	7/10/2005						No Samples Taken			
Orange	Yellow	76	7/11/2005	25	497.2	1538.8	9:07:00	11:53:30				0.182
Orange	Yellow	77	7/12/2005	26	496.6	1535.5	8:29:00	11:14:00				0.182
Orange	Yellow	78	7/13/2005	26	497.9	1529.5	8:25:00	11:09:00		11:55:00		0.217
Orange	Yellow	79	7/14/2005	27	497.1	1539.1	8:44:00	11:32:00				0.177
Orange	Yellow	80	7/15/2005	27	496.7	1523.0	8:15:00	10:54:00				0.169
Orange	Yellow	81	7/16/2005						No Samples Taken			
Orange	Yellow	82	7/17/2005						No Samples Taken			
Orange	Yellow	83	7/18/2005	28	494.2	1527.8	8:34:00	11:11:00				0.199
Orange	Yellow	84	7/19/2005	27	495.9	1522.8	8:42:00	11:19:00				0.170
Orange	Yellow	85	7/20/2005	26	120.9	238.9	8:53:00	9:11:00				NA

Sample Legend:

Y1 = single blank column

Group Zip Tie Color (Single Column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass Empty (g)	Bottle Mass w/ H ₂ O (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Orange	Green	0	4/26/2005	14	500.0	1538.1	10:30:30	12:59:30				0.159
Orange	Green	1	4/27/2005	13	500.6	1530.9	8:45:15	11:22:00				0.098
Orange	Green	2	4/28/2005	15	501.7	1543.6	9:29:00	12:11:00				0.124
Orange	Green	3	4/29/2005	13	500.8	1558.8	9:55:30	12:53:30				0.140
Orange	Green	4	4/30/2005	15	500.3	1557.4	10:57:00	13:41:30				0.137
Orange	Green	5	5/1/2005	13	502.0	1527.1	10:20:00	13:03:45				0.128
Orange	Green	6							low flows, no samples			
Orange	Green	7	5/3/2005	15	500.5	1543.7	8:37:15	11:08:00				16:00:00
Orange	Green	8	5/4/2005	14	499.4	1549.0	9:24:45	11:56:15				0.160
Orange	Green	9	5/5/2005	13	499.3	1554.8	8:47:30	11:21:45				0.181
Orange	Green	10	5/6/2005	15	501.9	1523.6	10:32:00	13:03:00				0.180
Orange	Green	11	5/7/2005	15	499.8	1535.4	9:18:15	11:50:30				0.147
Orange	Green	12	5/8/2005	16	499.8	1518.1	9:36:45	12:05:30				0.145
Orange	Green	13	5/9/2005	18	499.6	1558.1	8:56:00	11:32:30			11:45:30	14:36:00
Orange	Green	14	5/10/2005	18	499.5	1541.3	9:26:15	11:58:00				0.085
Orange	Green	15	5/11/2005	19	499.2	1556.8	8:47:15	11:23:45				0.164
Orange	Green	16	5/12/2005	20	499.8	1555.1	8:35:15	11:09:45			11:21:00	14:15:00
Orange	Green	17	5/13/2005	16	500.4	1517.9	9:09:00	11:52:45				0.097
Orange	Green	18	5/14/2005	16	500.2	1550.4	9:14:30	11:50:00				0.086
Orange	Green	19	5/15/2005	15	500.4	1550.1	9:08:15	11:45:00				0.097
Orange	Green	20	5/16/2005	15	500.6	1556.8	9:11:30	11:55:30			12:10:00	15:02:30
												0.119

Sample Legend:
G1 = single column with NORIT carbon

Orange	Green	21	5/17/2005	11	500.6	1555.3	9:11:45	11:53:30				0.088
Orange	Green	22	5/18/2005	12	500.4	1552.5	8:54:00	11:30:15		11:39:00	14:29:30	0.131
Orange	Green	23	5/19/2005	15	500.1	1549.2	9:01:00	11:37:30				0.120
Orange	Green	24	5/20/2005	16	499.9	1555.5	8:58:00	11:31:15		11:54:00	14:40:00	0.094
Orange	Green	25	5/21/2005	17	500.6	1486.1	9:28:00	11:53:30				0.094
Orange	Green	26	5/22/2005	18	500.3	1557.5	9:48:30	12:32:45				0.100
Orange	Green	27	5/23/2005	17	388.8	1352.6	9:03:30	11:31:00				0.133
Orange	Green	28	5/24/2005	17	499.4	1556.5	8:58:45	11:39:30		11:53:00		0.112
Orange	Green	29	5/25/2005	16	499.3	1545.2	9:02:45	11:42:00				0.112
Orange	Green	30	5/26/2005	15	499.2	1534.5	9:05:45	11:42:15				0.094
Orange	Green	31	5/27/2005	17	499.7	1523.7	10:07:15	12:48:00				0.109
Orange	Green	32	5/28/2005						No Samples Taken			
Orange	Green	33	5/29/2005	18					No Samples Taken			
Orange	Green	34	5/30/2005						No Samples Taken			
Orange	Green	35	5/31/2005	17	499.6	1549.4	8:44:15	11:19:45		11:32:00		0.124
Orange	Green	36	6/1/2005	18	499.4	1549.9	8:49:00	11:27:00				0.134
Orange	Green	37	6/2/2005	19	499.6	1525.8	8:22:00	11:00:00		11:09:00		0.074
Orange	Green	38	6/3/2005	20	499.6	1464.8	9:16:00	11:53:00				0.083
Orange	Green	39	6/4/2005						No Samples Taken			
Orange	Green	40	6/5/2005	22					No Samples Taken			
Orange	Green	41	6/6/2005	21	499.3	1551.0	9:00:00	11:40:00		11:52:00		0.080
Orange	Green	42	6/7/2005	22	499.4	1548.0	8:48:45	11:27:45				0.085
Orange	Green	43	6/8/2005	23	497.3	1549.1	8:59:15	11:38:30				0.082

Sample Legend:

G1 = single column with NORIT carbon

Orange	Green	44	6/9/2005	23	497.2	1548.9	8:52:15	11:30:00		11:44:00	0.090
Orange	Green	45	6/10/2005	25	499.1	1519.8	9:37:00	12:11:00			0.078
Orange	Green	46	6/11/2005						No Samples Taken		
Orange	Green	47	6/12/2005	22					No Samples Taken		
Orange	Green	48	6/13/2005	25	499.5	1545.2	8:49:00	11:27:45			0.115
Orange	Green	49	6/14/2005	25	499.6	1542.3	9:24:30	12:01:00			0.093
Orange	Green	50	6/15/2005	24	499.3	1529.8	9:10:30	11:47:00		12:00:00	0.165
Orange	Green	51	6/16/2005	23	499.0	1548.7	9:15:30	11:51:30			0.148
Orange	Green	52	6/17/2005	21	499.1	1555.7	9:05:00	11:46:30			0.081
Orange	Green	53	6/18/2005						No Samples Taken		
Orange	Green	54	6/19/2005	19					No Samples Taken		
Orange	Green	55	6/20/2005	18	498.7	1553.9	8:52:00	11:32:30			0.086
Orange	Green	56	6/21/2005	19	498.5	1546.6	8:25:45	11:05:30			0.111
Orange	Green	57	6/22/2005	20	499.4	1544.5	8:42:30	11:22:00		11:32:00	0.078
Orange	Green	58	6/23/2005	21	499.6	1535.0	9:52:30	12:29:00			0.076
Orange	Green	59	6/24/2005	21	497.3	1498.1	8:44:15	11:17:00			0.109
Orange	Green	60	6/25/2005						No Samples Taken		
Orange	Green	61	6/26/2005	25					No Samples Taken		
Orange	Green	62	6/27/2005	25	498.0	1507.0	9:32:15	12:04:30			0.103
Orange	Green	63	6/28/2005	26	499.7	1534.3	9:41:00	12:16:15			0.081
Orange	Green	64	6/29/2005	27	499.7	1520.2	8:45:45	11:20:15		11:31:30	0.090
Orange	Green	65	6/30/2005	25	499.2	1536.8	8:30:00	11:07:00			0.134
Orange	Green	66	7/1/2005	26	499.6	1538.1	9:20:00	12:00:00			0.103

Sample Legend:

G1 = single column with NORIT carbon

Orange	Green	67	7/2/2005						No Samples Taken		
Orange	Green	68	7/3/2005						No Samples Taken		
Orange	Green	69	7/4/2005						No Samples Taken		
Orange	Green	70	7/5/2005	27	499.4	1554.4	9:21:00	12:03:00			0.092
Orange	Green	71	7/6/2005	25	499.7	1542.5	8:32:00	11:17:00		11:27:00	0.123
Orange	Green	72	7/7/2005	26	499.7	1527.9	9:41:00	12:21:00			0.158
Orange	Green	73	7/8/2005	25	496.6	1553.6	9:32:00	12:17:00			0.213
Orange	Green	74	7/9/2005						No Samples Taken		
Orange	Green	75	7/10/2005						No Samples Taken		
Orange	Green	76	7/11/2005	25	496.6	1553.8	9:07:00	11:46:45			0.162
Orange	Green	77	7/12/2005	26	499.9	1470.3	8:29:00	11:18:00			0.187
Orange	Green	78	7/13/2005	26	496.5	1523.9	8:25:00	11:46:00		11:55:00	0.282
Orange	Green	79	7/14/2005	27	496.2	1481.5	8:44:00	12:43:00			0.184
Orange	Green	80	7/15/2005	27	495.2	1452.6	8:15:00	12:44:00			0.157
Orange	Green	81	7/16/2005						No Samples Taken		
Orange	Green	82	7/17/2005						No Samples Taken		
Orange	Green	83	7/18/2005	28	497.1	1503.3	8:34:00	14:59:00			0.136
Orange	Green	84	7/19/2005	27	495.5	1424.9	8:42:00	15:17:00			0.235
Orange	Green	85	7/20/2005	26	121.1	221.8	8:53:00	9:40:00			NA

Sample Legend:

G1 = single column with NORIT carbon

Group Zip Tie Color (Double column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass Empty (g)	Bottle Mass w/ H ₂ O (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Blue	Pink	0	4/26/2005	14	500.6	1541.6	10:32:00	12:56:15				0.268
Blue	Pink	1	4/27/2005	13	501.8	1540.7	8:45:45	11:19:45				0.206
Blue	Pink	2	4/28/2005	15	502.8	1546.7	9:30:15	12:13:00				0.109
Blue	Pink	3	4/29/2005	13	502.8	1545.9	9:56:00	14:07:45				0.139
Blue	Pink	4	4/30/2005	15	502.6	1156.1	10:55:30	14:17:15				NA
Blue	Pink	5	5/1/2005	13	501.9	778.7	10:21:00	13:06:00				NA
Blue	Pink	6							low flows, no samples			
Blue	Pink	7	5/3/2005	15	501.1	1502.8	8:38:15	11:08:30			16:00:00	0.102
Blue	Pink	8	5/4/2005	14	500.2	1534.1	9:25:30	12:02:15				0.140
Blue	Pink	9	5/5/2005	13	500.4	1530.6	8:48:00	11:27:15				0.215
Blue	Pink	10	5/6/2005	15	499.2	1537.7	10:32:00	13:17:30				0.149
Blue	Pink	11	5/7/2005	15	499.7	1494.2	9:18:45	11:50:45				0.120
Blue	Pink	12	5/8/2005	16	499.4	1505.2	9:38:15	12:10:00				0.088
Blue	Pink	13	5/9/2005	18	499.9	1548.2	8:56:00	11:33:00		11:54:30	14:40:00	0.099
Blue	Pink	14	5/10/2005	18	500.0	1512.5	9:26:15	12:00:00				0.144
Blue	Pink	15	5/11/2005	19	499.8	1538.5	8:47:15	11:24:15				0.101
Blue	Pink	16	5/12/2005	20	499.6	1517.7	8:35:15	11:09:45		11:29:00	14:16:00	0.112
Blue	Pink	17	5/13/2005	16	500.3	1530.0	9:09:00	11:52:45				0.121
Blue	Pink	18	5/14/2005	16	499.3	1539.3	9:09:15	11:55:45				0.102
Blue	Pink	19	5/15/2005	15	500.2	1535.2	9:08:45	11:49:15				0.094
Blue	Pink	20	5/16/2005	15	500.0	1546.6	9:12:00	12:01:00		12:09:00	15:18:00	0.076

Sample Legend:
P2 = double column with Calgon carbon

Blue	Pink	21	5/17/2005	11	500.0	1552.4	9:12:00	11:59:30				0.130	
Blue	Pink	22	5/18/2005	12	501.0	1528.5	8:55:00	11:35:15			11:52:00	14:31:30	0.083
Blue	Pink	23	5/19/2005	15	500.0	1525.3	9:01:00	11:44:15					0.112
Blue	Pink	24	5/20/2005	16	499.5	1548.4	8:58:15	11:44:30			12:03:00	14:49:00	0.137
Blue	Pink	25	5/21/2005	17	500.5	1449.6	9:20:15	11:55:45					0.172
Blue	Pink	26	5/22/2005	18	500.6	1535.4	9:48:30	12:32:45					0.125
Blue	Pink	27	5/23/2005	17	388.6	1313.6	9:03:45	11:31:00					0.057
Blue	Pink	28	5/24/2005	17	499.7	1556.6	8:59:30	11:43:00			12:03:00		0.078
Blue	Pink	29	5/25/2005	16	499.8	1539.0	9:02:45	11:44:00					0.095
Blue	Pink	30	5/26/2005	15	499.6	1536.5	9:06:00	11:45:30					0.131
Blue	Pink	31	5/27/2005	17	499.7	1539.6	10:07:45	12:52:30					0.111
Blue	Pink	32	5/28/2005						No Samples Taken				
Blue	Pink	33	5/29/2005	18					No Samples Taken				
Blue	Pink	34	5/30/2005						No Samples Taken				
Blue	Pink	35	5/31/2005	17	499.7	1520.7	8:44:15	11:23:15			11:39:30		0.128
Blue	Pink	36	6/1/2005	18	500.0	1516.9	8:49:00	11:27:00					0.110
Blue	Pink	37	6/2/2005	19	499.2	1522.9	8:22:00	11:00:00			11:17:00		0.146
Blue	Pink	38	6/3/2005	20	499.4	1522.4	9:16:00	11:53:00					0.099
Blue	Pink	39	6/4/2005						No Samples Taken				
Blue	Pink	40	6/5/2005	22					No Samples Taken				
Blue	Pink	41	6/6/2005	21	499.6	1546.6	9:00:00	11:38:15			12:00:00		0.110
Blue	Pink	42	6/7/2005	22	499.4	1547.5	8:49:30	11:29:30					0.106
Blue	Pink	43	6/8/2005	23	496.9	1547.8	9:00:00	11:40:15					0.150
Blue	Pink	44	6/9/2005	23	498.7	1551.8	8:53:00	11:33:45			11:55:00		0.094

Sample Legend:

P2 = double column with Calgon carbon

Blue	Pink	45	6/10/2005	25	499.3	1480.2	9:37:00	12:11:00			0.136
Blue	Pink	46	6/11/2005						No Samples Taken		
Blue	Pink	47	6/12/2005	22					No Samples Taken		
Blue	Pink	48	6/13/2005	25	500.0	1533.2	8:49:00	11:30:00			0.107
Blue	Pink	49	6/14/2005	25	499.1	1535.0	9:24:30	12:01:30			0.095
Blue	Pink	50	6/15/2005	24	499.2	1513.7	9:10:30	11:47:00		12:08:00	0.095
Blue	Pink	51	6/16/2005	23	499.7	1525.8	9:15:30	11:55:00			0.094
Blue	Pink	52	6/17/2005	21	499.5	1513.4	9:05:00	11:46:30			0.125
Blue	Pink	53	6/18/2005						No Samples Taken		
Blue	Pink	54	6/19/2005	19					No Samples Taken		
Blue	Pink	55	6/20/2005	18	498.8	1532.7	8:52:00	11:32:30			0.083
Blue	Pink	56	6/21/2005	19	498.5	1516.5	8:25:45	11:05:30			0.098
Blue	Pink	57	6/22/2005	20	499.3	1543.1	8:42:30	11:29:00			0.094
Blue	Pink	58	6/23/2005	21	499.3	1544.8	9:52:30	12:29:00			0.092
Blue	Pink	59	6/24/2005	21	497.4	1496.9	8:44:30	11:16:00			0.088
Blue	Pink	60	6/25/2005						No Samples Taken		
Blue	Pink	61	6/26/2005	25					No Samples Taken		
Blue	Pink	62	6/27/2005	25	497.2	1509.9	9:32:30	12:04:45			0.093
Blue	Pink	63	6/28/2005	26	499.7	1538.2	9:41:15	12:16:30			0.128
Blue	Pink	64	6/29/2005	27	499.8	1528.1	8:46:00	11:21:00			0.103
Blue	Pink	65	6/30/2005	25	499.2	1538.7	8:30:00	11:07:00			0.137
Blue	Pink	66	7/1/2005	26	499.9	1555.0	9:20:00	12:00:00			0.122
Blue	Pink	67	7/2/2005						No Samples Taken		

Sample Legend:

P2 = double column with Calgon carbon

Blue	Pink	68	7/3/2005					No Samples Taken			
Blue	Pink	69	7/4/2005					No Samples Taken			
Blue	Pink	70	7/5/2005	27	499.7	1554.0	9:21:00	12:02:00			0.123
Blue	Pink	71	7/6/2005	25	500.1	1542.9	8:32:00	11:08:00			0.111
Blue	Pink	72	7/7/2005	26	499.6	1548.2	9:41:00	12:18:00			0.106
Blue	Pink	73	7/8/2005	25	495.1	1551.1	9:32:00	12:11:00			0.144
Blue	Pink	74	7/9/2005					No Samples Taken			
Blue	Pink	75	7/10/2005					No Samples Taken			
Blue	Pink	76	7/11/2005	25	497.5	1553.8	9:07:00	11:46:45			0.136
Blue	Pink	77	7/12/2005	26	496.1	1521.6	8:29:00	11:14:00			0.162
Blue	Pink	78	7/13/2005	26	497.2	1488.1	8:25:00	11:09:00			0.165
Blue	Pink	79	7/14/2005	27	388.5	1350.0	8:44:00	11:41:00			0.153
Blue	Pink	80	7/15/2005	27	498.0	1485.6	8:15:00	11:26:00			0.151
Blue	Pink	81	7/16/2005					No Samples Taken			
Blue	Pink	82	7/17/2005					No Samples Taken			
Blue	Pink	83	7/18/2005	28	497.8	1507.5	8:34:00	11:56:00			0.182
Blue	Pink	84	7/19/2005	27	497.0	1522.8	8:42:00	12:08:00			0.177
Blue	Pink	85	7/20/2005	26	122.1	236.9	8:55:00	9:18:00			NA

Sample Legend:

P2 = double column with Calgon carbon

Group Zip Tie Color (Double column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass Empty (g)	Bottle Mass w/ H ₂ O (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Blue	Yellow	0	4/26/2005	14	500.2	1544.9	10:33:30	12:57:00				0.082
Blue	Yellow	1	4/27/2005	13	502.7	1549.9	8:46:15	11:20:30				0.193
Blue	Yellow	2	4/28/2005	15	502.5	1529.2	9:30:45	12:07:00				0.191
Blue	Yellow	3	4/29/2005	13	500.2	1517.1	9:56:30	16:05:45				0.228
Blue	Yellow	4	4/30/2005	15	502.0	1409.1	10:55:00	14:17:45				NA
Blue	Yellow	5	5/1/2005	13	501.5	816.8	10:21:45	13:06:30				NA
Blue	Yellow	6							low flows, no samples			
Blue	Yellow	7	5/3/2005	15	500.8	1518.1	8:38:30	11:08:45				16:00:00
Blue	Yellow	8	5/4/2005	14	500.8	1529.1	9:26:00	11:59:30				0.131
Blue	Yellow	9	5/5/2005	13	499.1	1545.8	8:48:30	11:27:45				0.123
Blue	Yellow	10	5/6/2005	15	502.3	1508.9	10:32:00	13:04:00				0.124
Blue	Yellow	11	5/7/2005	15	499.2	1502.2	9:19:00	11:51:00				0.136
Blue	Yellow	12	5/8/2005	16	499.8	1511.8	9:38:30	12:10:30				0.091
Blue	Yellow	13	5/9/2005	18	499.2	1543.8	8:56:15	11:46:15				11:54:30
Blue	Yellow	14	5/10/2005	18	499.1	1512.7	9:26:30	12:00:00				0.092
Blue	Yellow	15	5/11/2005	19	499.2	1546.8	8:47:30	11:24:15				0.156
Blue	Yellow	16	5/12/2005	20	500.0	1507.6	8:35:30	11:11:00				11:29:00
Blue	Yellow	17	5/13/2005	16	500.2	1525.4	9:09:15	11:49:15				0.099
Blue	Yellow	18	5/14/2005	16	500.7	1539.7	9:15:45	11:54:45				0.134
Blue	Yellow	19	5/15/2005	15	500.2	1541.5	9:09:15	11:50:00				0.101
Blue	Yellow	20	5/16/2005	15	499.8	1544.4	9:12:00	12:01:00				0.115

Sample Legend:

Y2 = double blank column

Blue	Yellow	21	5/17/2005	11	500.1	1527.0	9:12:00	12:14:30					0.120
Blue	Yellow	22	5/18/2005	12	500.6	1538.8	8:55:00	11:35:15			11:52:00	14:31:30	0.138
Blue	Yellow	23	5/19/2005	15	499.9	1545.9	9:01:15	11:44:15					0.146
Blue	Yellow	24	5/20/2005	16	500.1	1553.3	8:58:15	11:44:30			12:03:00	14:49:00	0.078
Blue	Yellow	25	5/21/2005	17	500.6	1473.8	9:28:30	11:56:00					0.153
Blue	Yellow	26	5/22/2005	18	500.8	1558.7	9:49:00	12:32:45					0.117
Blue	Yellow	27	5/23/2005	17	388.9	1340.0	9:04:00	11:32:00					0.139
Blue	Yellow	28	5/24/2005	17	499.4	1528.2	8:59:30	11:43:00			12:03:00		0.114
Blue	Yellow	29	5/25/2005	16	499.9	1500.9	9:03:00	11:44:00					0.100
Blue	Yellow	30	5/26/2005	15	499.3	1465.3	9:06:15	11:46:30					0.101
Blue	Yellow	31	5/27/2005	17	499.5	1414.3	10:07:45	12:52:30					0.091
Blue	Yellow	32	5/28/2005							No Samples Taken			
Blue	Yellow	33	5/29/2005	18						No Samples Taken			
Blue	Yellow	34	5/30/2005							No Samples Taken			
Blue	Yellow	35	5/31/2005	17	499.4	1540.4	8:44:30	11:23:15			11:39:30		0.098
Blue	Yellow	36	6/1/2005	18	499.8	1532.6	8:49:00	11:27:00					0.063
Blue	Yellow	37	6/2/2005	19	499.6	1541.9	8:22:00	11:00:00			11:17:00		0.093
Blue	Yellow	38	6/3/2005	20	499.3	1541.6	9:16:00	11:53:00					0.106
Blue	Yellow	39	6/4/2005							No Samples Taken			
Blue	Yellow	40	6/5/2005	22						No Samples Taken			
Blue	Yellow	41	6/6/2005	21	499.5	1547.1	9:00:00	11:38:15			12:00:00		0.086
Blue	Yellow	42	6/7/2005	22	499.8	1546.8	8:49:30	11:29:30					0.077

Sample Legend:

Y2 = double blank column

Blue	Yellow	43	6/8/2005	23	497.9	1548.4	9:00:00	11:40:15					0.090
Blue	Yellow	44	6/9/2005	23	496.4	1548.0	8:53:00	11:33:45				11:55:00	0.118
Blue	Yellow	45	6/10/2005	25	499.1	1499.8	9:37:00	12:11:00					0.080
Blue	Yellow	46	6/11/2005							No Samples Taken			
Blue	Yellow	47	6/12/2005	22						No Samples Taken			
Blue	Yellow	48	6/13/2005	25	499.7	1542.9	8:49:00	11:28:30					0.111
Blue	Yellow	49	6/14/2005	25	499.1	1537.0	9:24:30	12:01:30					0.096
Blue	Yellow	50	6/15/2005	24	499.4	1515.0	9:10:30	11:47:00			12:08:00		0.070
Blue	Yellow	51	6/16/2005	23	499.7	1537.4	9:15:30	11:55:00					0.093
Blue	Yellow	52	6/17/2005	21	499.4	1556.5	9:05:00	11:46:30					0.088
Blue	Yellow	53	6/18/2005							No Samples Taken			
Blue	Yellow	54	6/19/2005	19						No Samples Taken			
Blue	Yellow	55	6/20/2005	18	498.8	1549.2	8:52:00	11:32:30					0.084
Blue	Yellow	56	6/21/2005	19	498.8	1539.2	8:25:45	11:05:30					0.077
Blue	Yellow	57	6/22/2005	20	499.6	1548.3	8:42:30	11:22:00					0.072
Blue	Yellow	58	6/23/2005	21	499.1	1536.4	9:52:30	12:29:00					0.070
Blue	Yellow	59	6/24/2005	21	497.6	1497.4	8:44:45	11:18:30					0.061
Blue	Yellow	60	6/25/2005							No Samples Taken			
Blue	Yellow	61	6/26/2005	25						No Samples Taken			
Blue	Yellow	62	6/27/2005	25	496.6	1494.7	9:32:45	12:08:00					0.101
Blue	Yellow	63	6/28/2005	26	499.6	1501.5	9:41:30	12:16:45					0.108
Blue	Yellow	64	6/29/2005	27	499.5	1528.1	8:46:30	11:17:15					0.074
Blue	Yellow	65	6/30/2005	25	499.6	1536.6	8:30:00	11:13:00					0.099

Sample Legend:

Y2 = double blank column

Blue	Yellow	66	7/1/2005	26	499.6	1532.3	9:20:00	12:02:00					0.076
Blue	Yellow	67	7/2/2005						No Samples Taken				
Blue	Yellow	68	7/3/2005						No Samples Taken				
Blue	Yellow	69	7/4/2005						No Samples Taken				
Blue	Yellow	70	7/5/2005	27	499.8	1553.6	9:21:00	12:04:00					0.119
Blue	Yellow	71	7/6/2005	25	499.9	1539.5	8:32:00	11:13:00					0.128
Blue	Yellow	72	7/7/2005	26	500.0	1537.2	9:41:00	12:21:00					0.112
Blue	Yellow	73	7/8/2005	25	498.0	1554.2	9:32:00	12:16:00					0.141
Blue	Yellow	74	7/9/2005						No Samples Taken				
Blue	Yellow	75	7/10/2005						No Samples Taken				
Blue	Yellow	76	7/11/2005	25	497.0	1530.3	9:07:00	11:47:00					0.149
Blue	Yellow	77	7/12/2005	26	498.8	1531.6	8:29:00	11:08:00					0.211
Blue	Yellow	78	7/13/2005	26	497.0	1551.7	8:25:00	11:08:00					0.153
Blue	Yellow	79	7/14/2005	27	388.9	1351.4	8:44:00	11:12:00					0.136
Blue	Yellow	80	7/15/2005	27	497.6	1554.9	8:15:00	10:49:00					0.135
Blue	Yellow	81	7/16/2005						No Samples Taken				
Blue	Yellow	82	7/17/2005						No Samples Taken				
Blue	Yellow	83	7/18/2005	28	494.7	1532.2	8:34:00	11:44:00					0.153
Blue	Yellow	84	7/19/2005	27	497.6	1524.4	8:42:00	12:08:00					0.184
Blue	Yellow	85	7/20/2005	26	121.3	234.9	8:55:00	9:18:00					NA

Sample Legend:

Y2 = double blank column

Group Zip Tie Color (Double column)	Column Zip Tie Color	Sample ID	Sample Date	Temp. of Feed water (C)	Bottle Mass Empty (g)	Bottle Mass w/ H ₂ O (g)	PCB Sample Start time (incl. AM/PM)	PCB Sample Finish Time (incl. AM/PM)	Noteworthy Observations	TOC sample end time (40 mL)	TSS sample end time (1 L)	Turbidity (NTU)
Blue	Green	0	4/26/2005	14	500.4	1541.7	10:34:45	13:13:00				0.117
Blue	Green	1	4/27/2005	13	502.6	1514.0	8:47:00	11:30:30				0.165
Blue	Green	2	4/28/2005	15	502.4	1522.9	9:31:15	12:19:00				0.108
Blue	Green	3	4/29/2005	13	500.2	1556.8	9:57:00	13:48:15				0.141
Blue	Green	4	4/30/2005	15	501.9	994.3	10:54:30	14:18:15				NA
Blue	Green	5	5/1/2005	13	502.4	656.5	10:22:30	13:07:00				NA
Blue	Green	6							low flows, no samples			
Blue	Green	7	5/3/2005	15	500.2	1495.5	8:38:45	11:09:00				16:00:00 0.131
Blue	Green	8	5/4/2005	14	501.4	1526.4	9:26:30	12:02:45				0.114
Blue	Green	9	5/5/2005	13	499.7	1527.9	8:49:00	11:28:30				0.130
Blue	Green	10	5/6/2005	15	499.1	1558.2	10:32:00	13:17:00				0.181
Blue	Green	11	5/7/2005	15	499.2	1486.3	9:19:45	11:51:15				0.147
Blue	Green	12	5/8/2005	16	500.0	1503.1	9:39:00	12:11:00				0.150
Blue	Green	13	5/9/2005	18	499.4	1549.5	8:56:15	11:33:00		11:54:30	14:40:00	0.105
Blue	Green	14	5/10/2005	18	499.8	1508.0	9:26:30	12:00:00				0.154
Blue	Green	15	5/11/2005	19	500.0	1536.0	8:47:30	11:24:15				0.098
Blue	Green	16	5/12/2005	20	499.5	1510.2	8:35:30	11:13:00		11:29:00	14:16:00	0.140
Blue	Green	17	5/13/2005	16	500.1	1524.7	9:09:15	11:49:15				0.088
Blue	Green	18	5/14/2005	16	500.1	1537.3	9:16:15	11:56:30				0.117
Blue	Green	19	5/15/2005	15	500.2	1533.8	9:09:30	11:50:45				0.109

Blue	Green	20	5/16/2005	15	500.3	1554.0	9:12:00	12:01:00		12:19:00	15:18:00	0.142
Blue	Green	21	5/17/2005	11	500.2	1548.6	9:12:15	11:59:30				0.112
Blue	Green	22	5/18/2005	12	500.6	1525.2	8:55:00	11:35:15		11:52:00	14:31:30	0.080
Blue	Green	23	5/19/2005	15	499.9	1538.0	9:01:15	11:44:15				0.080
Blue	Green	24	5/20/2005	16	499.3	1553.1	8:58:15	11:40:15		12:03:00	14:49:00	0.078
Blue	Green	25	5/21/2005	17	500.6	1452.1	9:28:45	11:56:15				0.085
Blue	Green	26	5/22/2005	18	500.9	1531.5	9:49:00	12:32:45				0.062
Blue	Green	27	5/23/2005	17	388.6	1323.6	9:04:15	11:32:00				0.095
Blue	Green	28	5/24/2005	17	499.7	1537.3	8:59:30	11:43:00		12:03:00		0.090
Blue	Green	29	5/25/2005	16	499.7	1519.4	9:03:00	11:44:00				0.139
Blue	Green	30	5/26/2005	15	499.2	1516.7	9:06:30	11:45:30				0.093
Blue	Green	31	5/27/2005	17	499.9	1529.2	10:07:45	12:52:30				0.094
Blue	Green	32	5/28/2005						No Samples Taken			
Blue	Green	33	5/29/2005	18					No Samples Taken			
Blue	Green	34	5/30/2005						No Samples Taken			
Blue	Green	35	5/31/2005	17	499.9	1534.2	8:44:30	11:23:15		11:39:30		0.082
Blue	Green	36	6/1/2005	18	499.7	1531.2	8:49:00	11:27:00				0.086
Blue	Green	37	6/2/2005	19	499.5	1536.7	8:22:00	11:00:00		11:17:00		0.082
Blue	Green	38	6/3/2005	20	499.4	1539.3	9:16:00	11:53:00				0.080
Blue	Green	39	6/4/2005						No Samples Taken			
Blue	Green	40	6/5/2005	22					No Samples Taken			
Blue	Green	41	6/6/2005	21	499.4	1550.3	9:00:00	11:38:15		12:00:00		0.123
Blue	Green	42	6/7/2005	22	499.2	1547.2	8:49:30	11:29:30				0.128

Sample Legend:

G2 = double column with NORIT carbon

Blue	Green	43	6/8/2005	23	499.2	1549.9	9:00:00	11:40:15					0.086
Blue	Green	44	6/9/2005	23	497.8	1551.8	8:53:00	11:33:45			11:55:00		0.075
Blue	Green	45	6/10/2005	25	499.1	1523.0	9:37:00	12:11:00					0.080
Blue	Green	46	6/11/2005						No Samples Taken				
Blue	Green	47	6/12/2005	22					No Samples Taken				
Blue	Green	48	6/13/2005	25	499.6	1542.0	8:49:00	11:25:30					0.091
Blue	Green	49	6/14/2005	25	499.7	1544.9	9:24:30	11:59:00					0.081
Blue	Green	50	6/15/2005	24	499.2	1537.8	9:10:30	11:47:00			12:08:00		0.099
Blue	Green	51	6/16/2005	23	499.4	1520.2	9:15:30	11:55:00					0.135
Blue	Green	52	6/17/2005	21	499.4	1478.7	9:05:00	11:46:30					0.093
Blue	Green	53	6/18/2005						No Samples Taken				
Blue	Green	54	6/19/2005	19					No Samples Taken				
Blue	Green	55	6/20/2005	18	499.0	1537.5	8:52:00	11:46:45					0.075
Blue	Green	56	6/21/2005	19	499.1	1541.3	8:25:45	11:21:00					0.095
Blue	Green	57	6/22/2005	20	499.8	1513.1	8:42:30	11:32:00					0.067
Blue	Green	58	6/23/2005	21	499.3	1506.1	9:52:30	12:29:00					0.163
Blue	Green	59	6/24/2005	21	496.2	1506.4	8:45:00	11:24:30					0.149
Blue	Green	60	6/25/2005						No Samples Taken				
Blue	Green	61	6/26/2005	25					No Samples Taken				
Blue	Green	62	6/27/2005	25	389.9	1354.1	9:33:00	12:05:00					0.131
Blue	Green	63	6/28/2005	26	499.3	1503.2	9:41:45	12:24:00					0.295
Blue	Green	64	6/29/2005	27	499.7	1510.8	8:46:45	11:36:00					0.156

Sample Legend:

G2 = double column with NORIT carbon

Blue	Green	65	6/30/2005	25	499.1	1522.2	8:30:00	11:28:00				0.131
Blue	Green	66	7/1/2005	26	499.2	1506.8	9:20:00	12:15:00				0.085
Blue	Green	67	7/2/2005						No Samples Taken			
Blue	Green	68	7/3/2005						No Samples Taken			
Blue	Green	69	7/4/2005						No Samples Taken			
Blue	Green	70	7/5/2005	27	499.6	1343.8	9:21:00	12:12:00				0.106
Blue	Green	71	7/6/2005	25	499.3	1447.6	8:32:00	11:33:00				0.104
Blue	Green	72	7/7/2005	26	499.7	1289.6	9:41:00	12:33:00				0.133
Blue	Green	73	7/8/2005	25	495.5	1259.0	9:32:00	12:33:00				0.148
Blue	Green	74	7/9/2005						No Samples Taken			
Blue	Green	75	7/10/2005						No Samples Taken			
Blue	Green	76	7/11/2005	25	495.4	1018.7	9:07:00	12:06:00				0.151
Blue	Green	77	7/12/2005	26	497.3	934.6	8:29:00	11:18:00				0.150
Blue	Green	78	7/13/2005	26	496.9	929.8	8:25:00	11:46:00				0.114
Blue	Green	79	7/14/2005	27	388.5	828.5	8:44:00	12:43:00				0.116
Blue	Green	80	7/15/2005	27	498.4	928.5	8:15:00	12:44:00				0.123
Blue	Green	81	7/16/2005						No Samples Taken			
Blue	Green	82	7/17/2005						No Samples Taken			
Blue	Green	83	7/18/2005	28	496.8	966.1	8:34:00	14:59:00				0.127
Blue	Green	84	7/19/2005	27	495.3	935.1	8:42:00	15:17:00				0.171
Blue	Green	85	7/20/2005	26	121.9	212.9	8:55:00	10:24:00				NA

Sample Legend:

G2 = double column with NORIT carbon

**GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT**

RSSCT FEED WATER BATCH PREP LOG

Date	Sediment Used	Sediment Wt (lbs)	Site Water Volume (gal)	Decanted Vol (gal)	Filter to 1.0 μm					Date and Time Added to Feed Drum
					Influent Turbidity (NTU)	Initial Effluent Turbidity (NTU)	Intermediate Effluent Turbidity (NTU)	Final Effluent Turbidity (NTU)	Final Comp Turbidity (NTU)	
4/25/2005	S4B-2-01	1.96	50	45	20.8	0.17	0.08	0.04	0.08	4/26/05 0830-0930 (Test Day 0)
4/27/2005	S4B-2-01	1.96	50	45	18.5	0.08	--	0.04	0.05	4/28/05 0815-0915 (Test Day 2)
4/29/2005	S4B-2-01	1.96	50	45	13.7	0.05	0.08	0.03	0.04	5/1/05 1254-1323, 5/3/05 1600-1640 (Test Days 5 and 7)
5/3/2005	S4B-2-01	1.96	50	45	12.6	0.06	0.04	0.04	0.05	5/4/05 1614-1637, 5/6/05 0937-1015 (Test Days 8 and 10)
5/6/2005	S4B-2-01	1.96	50	45	21.6	0.06	0.02	0.05	0.05	5/7/05 1317-1240, 5/9/05 0846-0855 (Test Days 11 and 13)
5/10/2005	S4B-2-01	1.96	50	45	16.9	1.41, Filter changed, 0.09	0.04	0.03	0.11	5/10/05 1630-1655, 5/11/05 1140-1200 (Test Days 14 and 15)
5/12/2005	S4B-2-01	1.96	50	45	11.2	0.17	0.04	0.04	0.05	5/13/05 1154-1228 5/15/05 0838-0906 (Test Days 17 and 19)
5/13/2005	S4B-2-01	1.96	50	45	10.2	0.05	0.04	0.03	0.04	5/16/05 1523-1610 (Test Day 20)
5/18/2005	S4B-2-01	1.96	50	45	16.8	0.07	0.04	0.03	0.04	5/19/05 1150-1231 5/20/05 0830-0845 (Test Days 23 and 24)

**GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
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RSSCT FEED WATER BATCH PREP LOG

Date	Sediment Used	Sediment Wt (lbs)	Site Water Volume (gal)	Decanted Vol (gal)	Filter to 1.0 μm					Date and Time Added to Feed Drum
					Influent Turbidity (NTU)	Initial Effluent Turbidity (NTU)	Intermediate Effluent Turbidity (NTU)	Final Effluent Turbidity (NTU)	Final Comp Turbidity (NTU)	
5/20/2005	S4B-2-01	1.96	50	45	23.8	0.07	0.03	0.03	0.04	5/22/05 0940-0947 5/22/05 1233-1248 5/23/05 1201-1228 (Test Days 26 and 27)
5/24/2005	S4B-2-01	1.96	50	45	9.5	0.07	0.06	0.05	0.06	5/24/05 1345-1405 (Test Day 28)
5/27/2005 (1)	S4B-2-01	1.96	50	45	17.0	0.05	0.02	0.02	0.03	5/27/05 1500-1540 5/29/05 1219-1241 (Test Days 31and 33)
5/27/2005 (2)	S4B-2-01	1.96	50*	45	12.9	0.02	0.04	0.06	0.05	5/29/05 1241-1306 5/31/05 1140-1212 (Test Days 33 and 35)
6/1/2005	S4B-2-01	1.96	50*	45	9.9	0.05/0.06	0.05/0.06	0.02/0.04	0.06	6/1/05 1520-1542 (Test Day 36)
6/3/2005	S4B-2-01	1.96	50*	45	16.1	0.13	0.05	0.01	0.06	6/3/05 1631-1648 6/5/05 1515-1540 6/6/05 1407-1425 (Test Days 38,40,41)
6/6/2005	S4B-2-01	1.96	50*	45	14.9	0.03	0.06	0.04	0.08	6/7/05 1410-1450 6/9/05 1247-1316 (Test Day 42, 44)
6/9/2005	S4B-2-01	1.96	50*	45	9.2	0.03	0.03	0.04	0.03	6/10/05 1213-1245 (Test Day 45)
6/10/2005	S4B-2-01	1.96	50*	45	1.2	0.02	0.04	0.05	0.05	6/12/05 1111-1135 6/13/05 0837-0849, 1351-1433 (Test Days 47, 48)

**GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
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RSSCT FEED WATER BATCH PREP LOG

Date	Sediment Used	Sediment Wt (lbs)	Site Water Volume (gal)	Decanted Vol (gal)	Filter to 1.0 μm					Date and Time Added to Feed Drum
					Influent Turbidity (NTU)	Initial Effluent Turbidity (NTU)	Intermediate Effluent Turbidity (NTU)	Final Effluent Turbidity (NTU)	Final Comp Turbidity (NTU)	
6/13/2005	S4B-2-02	4.00	50*	45	30.6	0.09	0.06	0.06	0.05	6/15/05 1213-1241 6/16/05 1350-1426 (Test Day 50, 51)
6/16/2005	S4B-2-02	4.00	50*	45	46.9	0.20	0.02	0.02	0.05	6/17/05 1519-1539 6/19/05 1309-1340 (Test Days 52, 54)
6/20/2005	S4B-2-02	4.00	50*	45	30.1	0.18	0.08	0.08	0.11	6/21/05 815-825, 1125 1135 6/22/05 1135-1205 (Test Day 56, 57)
6/22/2005 (1)	S4B-2-02	4.00	50*	45	63.9	0.12	0.07	0.06	0.08	6/24/05 1128-1210 6/26/05 1312-1337, (Test day 59, 61)
6/22/2005 (2)	S4B-2-02	4.00	50*	45	37.0	0.19	0.10	0.03	0.04	6/27/05 1212-1242 6/29/05 1150-1210 (Test day 62, 64)
6/23/2005	S4B-2-02	4.00	50*	45	22.4	0.43	0.07	0.06	0.08	6/30/05 1130-1145 7/01/05 1215-1255 (Test Day 65, 66)
7/1/2005	S4B-2-02	8.00	50*	45	16.7	0.26	0.14	0.13	0.15	7/01/05 1610 - 7/05/05 0915 (Test Days 66-70)
7/6/2005	S4B-2-03	8.00	50*	45	15.9	0.18	0.06	0.05	0.09	7/06/05 1251-1337 7/07/05 1415-1430 (Test Day 71)
7/7/2005	S4B-2-03	8.00	50*	45	3.7	0.18	0.07	0.07	0.15	7/08/05 1427-1445, 7/08/05 1605 - 7/11/05 0850, 7/11/05 0852-0900 (Test Day 73, 73-76, 76)

**GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
ADDENDUM TO TREATABILITY STUDIES REPORT**

RSSCT FEED WATER BATCH PREP LOG

Date	Sediment Used	Sediment Wt (lbs)	Site Water Volume (gal)	Decanted Vol (gal)	Filter to 1.0 μm					Date and Time Added to Feed Drum
					Influent Turbidity (NTU)	Initial Effluent Turbidity (NTU)	Intermediate Effluent Turbidity (NTU)	Final Effluent Turbidity (NTU)	Final Comp Turbidity (NTU)	
7/8/2005	S4B-2-03	8.00	50*	45	4.0	0.16	0.08	0.06	0.07	7/11/05 1403-1427 7/13/05 1155-1227 (Test Day 76, 78)
7/12/2005	S4B-2-03	8.00	50*	45	11.5	0.20	0.06	0.05	0.10	7/14/05 1445-1510 7/15/05 1519-1533 7/19/05 1318-1340 (Test Day 79, 80, 84)
7/14/2005	S4B-2-03	8.00	50*	45	4.5	0.10	0.04	0.05	0.07	7/15/05 1610-7/18/05 0820 (Test Day 80-83)
7/19/2005	S4B-2-03	8.00	50*	45	1.9	0.09	0.03	0.03	0.07	

*-RSSCT effluent water used to make feed batch

Batches using 1.96 lbs of sediment were dosed with 10ppm Dev "E"

Batches using 4.00 and 8.00 lbs of sediment were dosed with 20ppm Dev "E"

All batches up to and including 6/23/05 were mixed for 60 min, dosed with Dev "E", and settled for 40 min prior to decanting.

Batches starting with 070105 were heated to 50-60C and mixed for 24hrs

Hudson River

RSSCT Notes and Observations

Date	Time	Observation																												
4/26/2005	0830-0930	Feed Batch 04/25/05 added to feed drum 10:21:00 RSSCT started 16:58:00 Pump setting adjusted from 588 to 570, based on observed flow rates																												
4/27/2005	8:25:00	Flow check P1 - 6.8 mL/min G2 - 6.1 mL/min																												
4/28/2005	0815-0915	Feed Batch 04/27/05 added to feed drum 8:35:00 Pump setting adjusted from 570 to 560, based on email from Brian Moore																												
4/29/2005		815 Column G1 observed to have stopped flowing. Column P1 observed to be flowing at approximately 1/2 of expected flow. 9:30:00 Pump stopped Feed tubes for columns P1 and G1 moved to different locations on the pump head 9:37:00 Pump restarted Flow on both columns appeared to be OK Buckets of waste water from each column were weighed to determine effluent volume since last sampling.																												
		<table border="1"><thead><tr><th></th><th>Weight (kg)</th><th>Time (min)</th><th>Flow rate (mL/min)</th></tr></thead><tbody><tr><td>P1</td><td>5.68</td><td>1308.50</td><td>4.34</td></tr><tr><td>Y1</td><td>7.40</td><td>1303.00</td><td>5.68</td></tr><tr><td>G1</td><td>3.45</td><td>1304.50</td><td>2.64</td></tr><tr><td>P2</td><td>6.62</td><td>1303.00</td><td>5.08</td></tr><tr><td>Y2</td><td>5.77</td><td>1309.50</td><td>4.41</td></tr><tr><td>G2</td><td>7.16</td><td>1298.00</td><td>5.52</td></tr></tbody></table>		Weight (kg)	Time (min)	Flow rate (mL/min)	P1	5.68	1308.50	4.34	Y1	7.40	1303.00	5.68	G1	3.45	1304.50	2.64	P2	6.62	1303.00	5.08	Y2	5.77	1309.50	4.41	G2	7.16	1298.00	5.52
	Weight (kg)	Time (min)	Flow rate (mL/min)																											
P1	5.68	1308.50	4.34																											
Y1	7.40	1303.00	5.68																											
G1	3.45	1304.50	2.64																											
P2	6.62	1303.00	5.08																											
Y2	5.77	1309.50	4.41																											
G2	7.16	1298.00	5.52																											
	16:08:00	Pump stopped Changes to pump configuration made as per Will Stephan																												
	16:12:00	Pump restarted																												
5/1/2005	1254-1323	Water from feed batch 042905 added to feed drum, ~20 gal Buckets of waste water from each column were weighed to determine effluent volume. These weights reflect total effluent from end of sampling 4/29/05 through the start of sampling 5/1/05, not including effluent volume collected for PCB analysis on 4/30/05.																												
		<table border="1"><thead><tr><th></th><th>Weight (kg)</th><th>Time (min)</th><th>Flow rate (mL/min)</th></tr></thead><tbody><tr><td>P1</td><td>14.58</td><td>2366.00</td><td>6.16</td></tr><tr><td>Y1</td><td>7.71</td><td>2505.75</td><td>3.08</td></tr><tr><td>G1</td><td>16.22</td><td>2562.00</td><td>6.33</td></tr><tr><td>P2</td><td>8.61</td><td>2451.50</td><td>3.51</td></tr><tr><td>Y2</td><td>9.58</td><td>2333.25</td><td>4.11</td></tr><tr><td>G2</td><td>6.70</td><td>2470.50</td><td>2.71</td></tr></tbody></table>		Weight (kg)	Time (min)	Flow rate (mL/min)	P1	14.58	2366.00	6.16	Y1	7.71	2505.75	3.08	G1	16.22	2562.00	6.33	P2	8.61	2451.50	3.51	Y2	9.58	2333.25	4.11	G2	6.70	2470.50	2.71
	Weight (kg)	Time (min)	Flow rate (mL/min)																											
P1	14.58	2366.00	6.16																											
Y1	7.71	2505.75	3.08																											
G1	16.22	2562.00	6.33																											
P2	8.61	2451.50	3.51																											
Y2	9.58	2333.25	4.11																											
G2	6.70	2470.50	2.71																											
5/2/2005	15:43:00	Pump stopped New pump tubing installed, lint clogs in influent tubing removed.																												
	15:53:00	Pump restarted																												

Flow appears to be equal among all columns
 Effluent weights 5/1/05, ~1300 to 5/02/05, 1644

	Weight (kg)	Time (min)	Flow rate (mL/min)
P1	9.90	1659.50	5.97
Y1	2.95	1658.75	1.78
G1	10.16	1700.25	5.98
P2	1.92	1658.00	1.16
Y2	2.19	1657.50	1.32
G2	0.98	1657.00	0.59

5/3/2005 8:35:00 Effluent weights 5/02/05, 1644 to 5/03/05, 0835

	Weight (kg)	Time (min)	Flow rate (mL/min)
P1	6.54	951.00	6.88
Y1	6.63	952.75	6.96
G1	6.57	953.25	6.89
P2	6.43	954.25	6.74
Y2	6.53	954.50	6.84
G2	6.37	954.75	6.67

1600-1640 Remaining feed from batch 042905 added to feed drum, ~25 gal

5/4/2005 9:40:00 Slight discoloration in top ~3 cm of glass wool columns
 Lint/fibers observed in pump influent lines.

1614-1637 Water from feed batch 050305 added to feed drum, ~20 gal

16:37:30 Pump adjusted from 560 to 550, as per Brian Moore

5/6/2005 0937-1015 Remaining feed from batch 050305 added to feed drum, ~25 gal
 15:37:00 Pump stopped

Lint accumulation removed

15:47:00 Pump restarted

5/7/2005 1217-1240 Water from feed batch 050605 added to feed drum, ~20 gal

5/9/2005 0846-0855 Remaining feed from batch 050605 added to feed drum, ~25 gal

5/10/2005 9:09:00 Pump stopped
 Lint accumulation removed

9:16:00 Pump restarted

10:17:30 Pump adjusted from 550 to 545, as per Brian Moore

1500 Replaced ice blankets with ice bath

1640-1700 Water from feed batch 051005 added to feed drum, ~20 gal

5/11/2005 1140-1200 Remaining feed from batch 051005 added to feed drum, ~25 gal

5/12/2005 830 Significant discoloration of all glass wool columns

5/13/2005 8:59:00 Pump adjusted from 545 to 540, as per Brian Moore

1154-1228 Water from feed batch 051205 added to feed drum, ~30 gal

14:15:00 Pump stopped

Lint accumulation removed

14:21:00 Pump restarted

5/15/2005 0838-0906 Remaining feed from batch 051205 added to feed drum, ~15 gal

5/16/2005 1523-1610 Feed batch 051305 added ~45 gal

5/17/2005 13:45:00 Pump stopped
 Lint accumulation removed

13:53:00 Pump restarted

5/19/2005 1150-1231 Water from feed batch 051805 added to feed drum, ~35 gal

5/20/2005 0830-0845 Remaining feed from batch 051805 added to feed drum,. ~10 gal
 14:54:00 Pump stopped
 Lint accumulation removed
 14:59:00 Pump restarted
 16:40:30 Pump adjusted from 540 to 535, as per Will Stephan
 5/22/2005 0940-0947 Water from feed batch 052005 added to feed drum, ~10 gal
 1233-1248 Water from feed batch 052005 added to feed drum, ~15 gal
 5/23/2005 1201-1228 Remaining feed from batch 052005 added to feed drum,. ~20 gal
 5/24/2005 1345-1405 Water from feed batch 052405 added to feed drum, ~20 gal
 5/25/2005 1618-1655 Remaining feed from batch 052405 added to feed drum,. ~25 gal
 5/27/2005 14:52:00 Pump stopped
 Lint accumulation removed
 14:59:00 Pump restarted
 1500-1540 Water from feed batch 052705 (1) added to feed drum, ~30 gal
 5/29/2005 1219-1241 Remaining feed from batch 052705 (1) added to feed drum,. ~15 gal
 1241-1306 Water from feed batch 052705 (2) added to feed drum, ~20 gal
 5/31/2005 1140-1212 Remaining feed from batch 052705 (2) added to feed drum,. ~25 gal
 16:55:00 Pump adjusted from 535 to 530, as per Brian Moore
 6/1/2005 1520-1542 Water from feed batch 060105 added to feed drum, ~15 gal
 6/2/2005 1642-1700 Water from feed batch 060105 added to feed drum, ~15 gal
 6/3/2005 1205-1221 Remaining feed from batch 060105 added to feed drum, ~10 gal
 16:18:00 Pump stopped
 Lint accumulation removed
 16:23:00 Pump restarted
 1631-1648 Water from feed batch 060305 added to feed drum, ~15 gal
 6/5/2005 1515-1540 Water from feed batch 060305 added to feed drum, ~20 gal
 6/6/2005 1407-1425 Remaining feed from batch 060305 added to feed drum, ~10 gal
 6/7/2005 1410-1450 Water from feed batch 060605 added to feed drum, ~25 gal
 6/9/2005 1247-1316 Remaining feed from batch 060605 added to feed drum, ~20 gal
 6/10/2005 1213-1245 Water from feed batch 060905 added to feed drum, ~35 gal
 13:58:00 Pump stopped
 Lint accumulation removed
 14:03:00 Pump restarted
 6/12/2005 1111-1135 Remaining feed from batch 060905 added to feed drum, ~15 gal
 6/13/2005 0837-0849 Water from feed batch 061005 added to feed drum, ~10 gal
 1351-1433 Remaining feed from batch 061005 added to feed drum, ~35 gal
 6/15/2005 1213-1241 Water from feed batch 061305 added to feed drum, ~20 gal
 6/16/2005 1350-1426 Remaining feed from batch 061305 added to feed drum, ~25 gal
 6/17/2005 14:23:30 Pump stopped
 Lint accumulation removed
 14:29:00 Pump restarted
 1519-1539 Water from feed batch 061605 added to feed drum, ~15 gal
 6/19/2005 1309-1340 Remaining feed from batch 061605 added to feed drum, ~30 gal
 6/20/2005 1130 **Possible algae growth noted on walls of feed drum.**
 6/21/2005 0815-0825 Water from feed batch 062005 added to feed drum, ~10 gal
 1125-1135 Water from feed batch 062005 added to feed drum, ~10 gal
 6/22/2005 1135-1205 Remaining feed from batch 062005 added to feed drum, ~25 gal
 14:41:00 Pump stopped
 Lint accumulation removed
 Pump head tubing shifted
 14:48:00 Pump restarted
 1500 Flow check

P1	6.69
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Y1	7.18
G1	6.75
P2	6.94
Y2	6.92
G2	6.91

- 6/24/2005 1128-1210 Water from feed batch 062205-1 added to feed drum, ~35 gal
 6/26/2005 1312-1337 Water from feed batch 062205-1 added to feed drum, ~15 gal
 6/27/2005 1212-1242 Water from feed batch 062205-2 added to feed drum, ~25 gal
 6/29/2005 1150-1210 Water from feed batch 062205-2 added to feed drum, ~15 gal
 6/30/2005 1130-1145 Water from feed batch 062305 added to feed drum, ~15 gal
- 11:30:00 Pump stopped
 Lint accumulation removed from pump influent, and glass wool column influent lines
 Sludgy, algae-like material was observed in the pump effluent lines and was removed
- 11:39:00 Pump restarted
- 7/1/2005 1215-1255 Remaining water from feed batch 062305 added to feed drum, ~30 gal
 7/1/2005 1610 Feed batch 070105 added at 24 mL/min ~45g
 7/5/2005 915
- 1608-1616 Pump stopped, pump head tubing replaced.
- 1620 Flow check - 10 min
- | | |
|----|------|
| P1 | 6.40 |
| Y1 | 6.50 |
| G1 | 6.44 |
| P2 | 6.77 |
| Y2 | 6.70 |
| G2 | 6.37 |
- 7/6/2005 1251-1337 Water from feed batch 070605 added to feed drum, ~30 gal
 7/7/2005 1415-1430 Remaining water from feed batch 070605 added to feed drum, ~15 gal
 1548-1616 Pump stopped to change out glass wool columns.
 Columns packed to the same density as before (0.0128g/cc), but 1/4
 the glass wool was added over 1/4 the length (0.75 g / 75 mm of column length).
 Flow check - 10 min
- | | |
|----|------|
| P1 | 6.24 |
| Y1 | 6.13 |
| G1 | 6.41 |
| P2 | 6.74 |
| Y2 | 6.34 |
| G2 | 5.17 |
- 7/8/2005 1427-1445 Water from feed batch 070705 added to feed drum, ~15 gal
 7/8/2005 1605 Feed batch 070705 added at 24 mL/min ~30g
 7/11/2005 850
- 0852-0900 Water from feed batch 070705 added to feed drum, ~5 gal
 12:20:00 Glass wool influent tubing switched P2 and G2
 14:02:00 Flow check - 10 min
- | | |
|----|------|
| P2 | 6.58 |
| G2 | 3.08 |
- 1403-1427 Water from feed batch 070805 added to feed drum, ~20 gal
 15:09:00 Glass wool influent tubing returned to original positions
 GAC Inf tubing switched P2 and G2
- 16:09:00 Flow check - 10 min
- | | |
|----|------|
| P2 | 6.63 |
| G2 | 2.98 |
- 7/12/2005 8:20:00 GAC Inf tubing returned to original positions.

7/13/2005 1155-1227 Remaining water from feed batch 070805 added to feed drum, ~25 gal

7/14/2005 14:45:00 Pump adjusted from 530 to 550, as per Brian Moore

1445-1510 Water from feed batch 071205 added to feed drum, ~20 gal

15:15:00 Flow check - 10 min

P1	6.80
Y1	6.53
G1	4.18
P2	5.46
Y2	6.83
G2	1.84
avg	5.27

7/15/2005 12:54:00 Pump stopped

1257-1503 Column G2 backwashed in place w/tap water @ pump setting 550
very little effluent from backwash (<100mL)

15:06:00 Pump restarted

15:19:00 Flow check - 10 min

P1	6.80
Y1	6.37
G1	3.38
P2	5.69
Y2	6.85
G2	1.72
avg	5.14

1519-1533 Water from feed batch 071205 added to feed drum, ~10 gal

7/18/2005 1610 feed batch 071405 added at 24 mL/min ~30g
820

7/19/2005 1318-1340 Water from feed batch 071205 added to feed drum, ~15 gal

7/20/2005 820 P2 Glass wool column effluent fitting observed to have come apart
Reconnected

12:40:00 Test Terminated

Exhibit D

Database (Electronic)

